

A SWIMMING POOL IN YOUR BACK YARD?

JUNE 1958 • 40 CENTS

Consumer

BULLETIN

The Original Consumer Information Magazine

Testing and Reporting on Products since 1928

RAZOR BLADES

12 brands were
dependably sharp,
some others poor
in CR's test



SCOURING POWDERS

CADILLAC 62 AND CHRYSLER WINDSOR

PORTABLE SABER SAWS

AIR CONDITIONERS

Razor blades

Will they cut you or your beard?

IF ONE WOULD BELIEVE the TV commercials for electric shavers, it would appear that practically no one uses the "old-fashioned" safety razors any more. It is a fact nevertheless that a great majority of people are using safety razor blades for their daily shaving. While shaving, either at home or in the barber shop, can never be a pleasure, a lot of shaving troubles can be avoided by using *good* razor blades and a little organization of the shaving process.

A razor blade with sharp edges in a correctly designed holder is but one step leading to a good shave. Equally important is the time taken to soften the hair when using shaving soap with water at a temperature of about 120°F. Lathering should be done for a period of not less than three minutes (five minutes for gray or white hairs). Of course, obtaining a close shave will be increasingly more difficult when the preparation time spent in lathering and rubbing the lather into the skin is shortened, or if the blade becomes dull. A too stiff lather and an angle of shaving which varies much beyond about 30 degrees between face and blade will also add to shaving difficulties.

The most satisfactory results will be obtained if the skin is stretched to smooth any wrinkles and if the razor stroke is made against the direc-

tion of hair growth. These same preparations and operations can be used successfully by women for shaving their legs.

The cutting edge of a razor blade is very thin and delicate and in use sections of the edge are actually bent over. Each time a blade is used, this condition becomes more pronounced until it results in a "dull" blade whose edge has lost its smoothness and begins to pull. Stropping a blade after use will help straighten a bent-over edge back into line. New blades will usually show a marked improvement in keenness if stropped before using. There is a limit to the extent to which a blade's life can be increased by stropping, however, for in time stropping will fail to improve the sharpness.

The consumer loses a good deal of time and some money if he tries to make his own search for efficient razor blades. This is a problem made more difficult by the fact that a good many blades that are offered must be discarded after two or three shaves. Even blades of well-known brands are at times of uncertain and non-uniform quality. Occasionally there are great variations even in a given package, and sometimes the two edges of the same blade show a wide difference in

(Continued on page 23)



This machine designed by Consumers' Research, and now used by a number of blade manufacturers who asked permission to reproduce it, measures the degree of keenness of each cutting edge as well as its durability or staying power. The cutting edge, under a vertical load of about 25 grams, is moved back and forth at a rate of 60 strokes per minute over a strip of specially selected fine white paper (see insert). An edge having a low degree of keenness has an irregularity (or several perhaps) that will permit the blade to "saw" through the paper in as few as one or two strokes. A blade having a well honed and finished edge and relatively lacking in microscopic irregularities will give in excess of 70 strokes in each direction and in some cases considerably above 100 complete strokes before cutting through the paper. (At the instant the paper is penetrated, an electronic device opens the motor circuit and stops the machine. The number of strokes before failure is shown on a counting device.)

The Consumers' Observation Post

CREDIT CARDS are becoming increasingly popular as a convenient method for keeping track of expenses. Many firms are now distributing Diners' Club cards and American Hotel Association Universal Travel cards to their executives. The Esquire Club is also becoming popular, although it is only two years old. Texaco, Esso, Gulf, Sun Oil, and Shell, and some other companies provide credit cards for charging gasoline purchases in spite of the fact that credit cards are somewhat expensive to handle. Collections, it seems, require considerable bookkeeping and are something of a headache, although The Wall Street Journal reports that bad debts are less than one percent of credit card sales.

* * *

FOOD ADDITIVES ARE A SUBJECT OF INCREASING CONCERN to consumers, as well as to state and federal bodies charged with public health and welfare. The Wyoming State Board of Agriculture has been considering a ban on the use of chemical additives that are designed to prevent spoilage of meat and fowl. The objection is that the use of such additives (antibiotics) may be a factor in building up an immunity in the human body to these drugs, rendering them ineffective for medical treatment in serious illness at some later time.

* * *

THE COTTON WASH-AND-WEAR SHIRT is reported to be taking over a sizable share of the men's shirt business. It is a comparative newcomer to the market although "no-iron" shirts made of synthetic fibers or blends of Dacron and cotton have been on the market for some time. Prices vary, but they are considerably higher than for the conventional cotton dress shirts. There is considerable controversy over the accuracy of the labeling of "wash-and-wear" and "no-iron." Fussy men are likely to want their shirts touched up, particularly on the collar, cuffs, pockets, and seams. Furthermore, there is a considerable difference in the resin finishes of the cotton wash-and-wear shirts. Some are good, others cause the shirt to turn yellow after it is laundered, and there is no way of telling from the label, brand, or inspection at the present time which are the good ones. Here is a field in which standards of quality are badly needed.

* * *

PHOTOGRAPHS IN COLOR are now acceptable on passports. Early in 1958, the State Department announced that it would accept color photographs as well as black and white for use in passports. Color, it appears, provides a more accurate identification and makes illegal substitution more difficult.

* * *

HAIR SPRAY in an aerosol dispenser is a commonly used product in beauty shops, and it is frequently found on women's dressing tables. Now it is proposed to dispense hair dressing for men in this fashion. Rexall has put out a product called Stag Perfect Hair Groom, and several other companies are considering putting out men's hair sprays. The product for men usually contains more lanolin and less stiffener (polyvinylpyrrolidone) than women's hair sprays, according to Chemical Week. The magazine reports that men use their wives' hair spray on the sly, but they might be reluctant to buy such a product especially designed for their own use.

* * *

COAL-TAR COLORING OF ORANGES was banned by the Food and Drug Administration in 1955. The courts, however, upset this ruling and then federal legislation was passed suspending the ban on the potentially dangerous dyes and giving the citrus industry until 1959 to find a substitute. In March, the U. S. Supreme Court agreed to review the decision of the lower court. Canada has outlawed the use of coal-tar dye on oranges on the grounds that the dye had been found to be a possible factor contributing to cancer.

WHEN THE CONSUMER BUYS FURNITURE labeled "mahogany," "oak," "maple," "walnut," or "fruitwood," what does he expect to get? The Federal Trade Commission has taken the position that furniture so labeled should be made of that particular wood. One furniture company to whose advertising the F.T.C. took exception claims that as used in the trade such terms do not refer to the type of wood actually used but to the type of finish on the furniture in question. It takes the position that its dealers fully understand this and are not deceived. Whether consumers generally understand this Alice-in-Wonderland state of affairs is not disclosed. As Humpty Dumpty said, "When I use a word, it means just what I choose it to mean...."

* * *

SHOCK HAZARD from various types of portable appliances is a growing home problem. The danger was highlighted by the fatality of a young boy in the Chicago area last year from contact with a portable television set in a metal cabinet that was electrically "live." (Portable TV sets are nearly always housed in metal cabinets.) The National Safety Council in a campaign for grounding home appliances and equipment, such as portable electric tools, stresses the fact that tools and appliances, such as television and radio sets, used in yards with wet grass, at the edge of swimming pools, in damp basements, and in wet garages present a serious shock hazard. The Council recommends that they should be grounded, either by the use of a three-conductor cord containing a separate ground wire with matching plug and receptacle, or by the use of a separate ground wire attached to the metal cabinet case or housing with the other end fastened to a water pipe or established ground connection.

* * *

CUTTING CHICKEN INTO PIECES can best be done with shears rather than a knife. The New Mexico A & M Experiment Station points out that the use of shears makes a more accurate, cleaner cut, with less slivering of the bone and less chance of cutting yourself in the process.

* * *

RESILIENT FLOOR TILES will retain a bright attractive appearance longer if they are given proper care and maintenance. Such floor coverings, including asphalt, rubber, vinyl, linoleum, and cork, should be protected by waxes, advises an expert writing in the New York Times. The homemaker who wants her resilient floor covering to retain its appearance as long as possible is advised to wash it as little as possible. Choice of the type of wax used is important. On vinyl, cork, linoleum, and vinyl asbestos floor coverings, either a self-polishing wax or one that requires polishing can be used. On asphalt and most forms of rubber tile, it is advisable to use only self-polishing waxes.

* * *

WHAT DETERMINES THE SIZE OF THE FAMILY WASH? According to a study made by the New York State College of Home Economics at Cornell, households in which there were children ages 6 to 12 reported the largest number of tubfuls washed. For an all-adult household in the 250 rural and urban homes surveyed, the average was five tubfuls a week. A baby in the family brought the weekly wash to nine tubfuls; in households in which there were several children 6 to 12 years old, the average was 10 tubs a week. In two-thirds of the households with automatic washers, washing was done at least twice a week, but in three-quarters of the households with non-automatic washers laundry was done once a week or less frequently.

* * *

CAPSULES CONTAINING ROYAL BEE JELLY have been seized by the Food and Drug Administration for misleading claims. The actions involve Prairie View Queen Bee capsules, Helena Rubinstein's Beauty for Life capsules, and Bee Royale capsules. The Food and Drug Administration objects to therapeutic claims for royal jelly and has made some 15 to 20 seizures of royal jelly products during the past few years.

(The continuation of this section is on page 35)

Consumer Bulletin

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Listings usually are arranged in alphabetical order by brand name (not in order of merit) under each quality or performance rating. A numeral 1, 2, or 3 at the end of a listing indicates relative price, 1 being low, 3 high. Where the 1, 2, 3 price ratings are given, brands in the 1, or least expensive group, are listed alphabetically, followed by brands in price group 2, also in alphabetical order, etc. A quality judgment is wholly independent of price.

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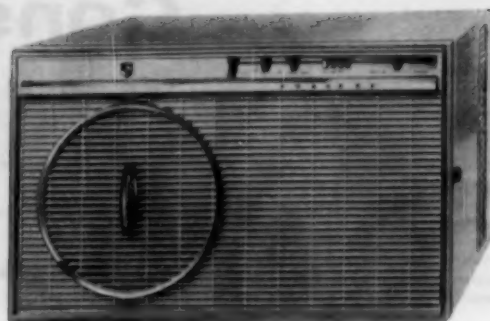
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Orison



Fedders

Keeping cool in '58

The new air conditioners generally offer more cooling per dollar expended than their predecessors and are lighter in weight and take up less space. If you can buy a 1957 model at a good discount, however—and there should be around 750,000 left over from the not-too-successful 1957 selling season—last year's model conditioner will likely represent a good buy.

FOR THE PAST SEVERAL YEARS, the most popular sized air conditioner in the industry has been $\frac{3}{4}$ horsepower. For 1958, practically all the manufacturers have discontinued production of that size and are concentrating on 1-horsepower models. The reason for the sudden change is concerned with a government taxing policy which says that an excise tax of 10 percent must be paid on the $\frac{3}{4}$ -horsepower and smaller models but levies no tax on 1-horsepower and larger models.

The consumer gains from this change, however, for the design of many of the new so-called 1-horsepower models has been improved to the point where the rated current input of several makes and models is only 7.5 amperes at 115 volts. Some of the new 7.5A models are called "portable" because they weigh only 90 to 125 pounds (which is portable if you are a big man in the best of health, or there are two of you). Any model rated at 7.5A can be operated on a household branch-circuit outlet if a slow-blowing fuse is employed at the fuse box and if city codes do not prohibit use of the conditioner on such a circuit.

There will be many $\frac{3}{4}$ -horsepower models of 1957 vintage available, for the industry had a

carry-over of 1957 models estimated, as already noted, at 750,000 conditioners. Many of these were and remain in dealers' hands. It is understood, however, that the large majority were in the hands of the manufacturers and, in some instances, have been given a so-called face lifting—often just a new grille—so that they can be sold as 1958 models. Whether 1957 or 1958 models, if they are sold at substantial price reductions, as is expected, they should represent good buys; the date is not important, except that an older model should not command a new-model price.

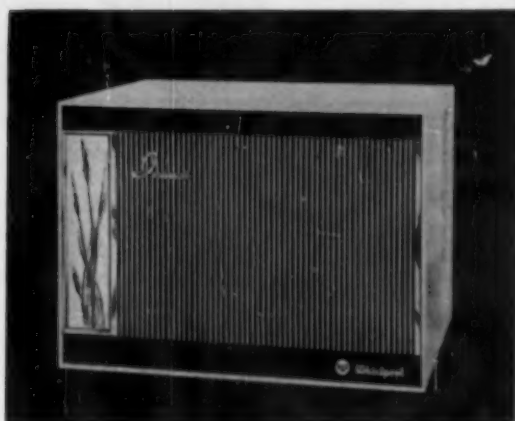
Horsepower vs. Btu

In the foregoing brief discussion, the size of a conditioner has been characterized by horsepower. The horsepower figure is based directly upon the rating of the motor-compressor used. While it is the term the floor salesman will likely con-

Various means are employed to direct the cooled air to various parts of a room. On the Airtemp, shown at the left, thin plastic louvers are tilted as desired to obtain the wanted air distribution. On the Fedders, shown at the right, a circular louver is rotated so as to provide a similar effect.



Frigidaire



RCA Whirlpool

tinue to use in selling, the horsepower is a nominal figure and does not give the buyer any true indication of the cooling capacity of a conditioner. The latter must be based, rather, upon its Btu rating.

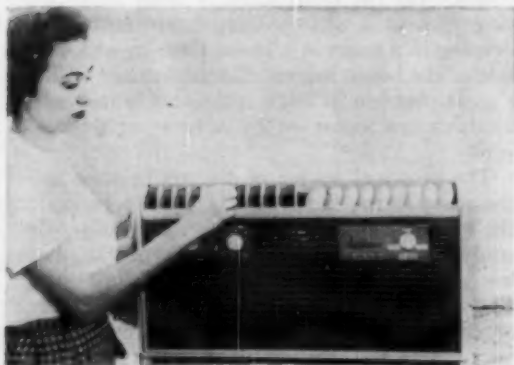
The members of the Room Air Conditioner Section of the Air-Conditioning and Refrigeration Institute (A.R.I.) adopted a ruling in 1956 that published capacities of room air conditioners would be given in Btu per hour as determined by a commonly accepted test method (ARI Standard 110-58) to be employed by all members. It was felt that misleading practices in sales of air conditioners would be discouraged and the consumer would be better able to judge the capacity on a firm and well-established basis and not be misled or confused, as he was by the much looser, easily misrepresented horsepower ratings. Unfortunately, the usefulness of the Btu basis of rating is dependent upon the honesty of the manufacturer because the tests are made directly under his supervision, and it is possible that he might misrepresent his own findings. Furthermore, to check on the manufacturers' claims is an expensive

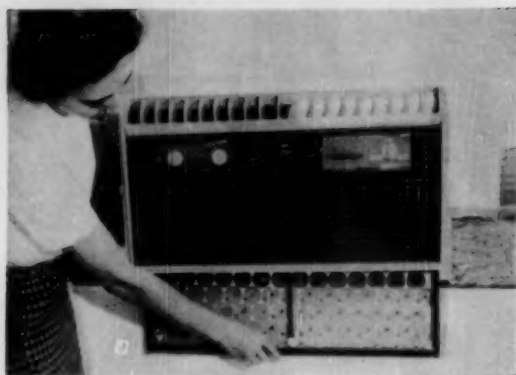
job—it costs a good many thousands of dollars to set up the equipment required, and only well-qualified engineers can conduct the tests and correctly use the instruments necessary for the work.

Estimating requirements

The Btu capacity required for a particular installation cannot be determined by any simple means. It is dependent upon many factors. As a very rough approximation, 15 Btu of capacity are required for each square foot of floor space to be cooled. If normally encountered hot-weather summer temperatures are above 95 degrees, a higher figure should be used.

If you are interested in determining the needed cooling capacity with some accuracy—and can use a yardstick and are not balked by relatively simple multiplications—you will find it advantageous to write for a copy of ARI Standard 120-56 (available from the Air-Conditioning and Refrigeration Institute, 1346 Connecticut Ave., N.W., Washington 6, D.C., for 10 cents). This standard comprises a cooling load estimate form and the



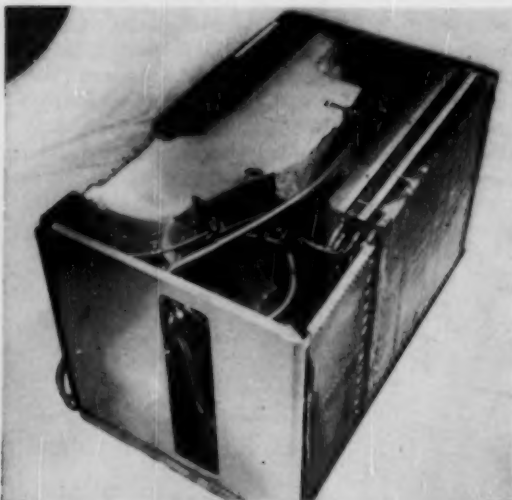


Air filters should be inspected regularly and cleaned or replaced as needed. A filter such as the one employed in the Airtamp, which can be removed easily from the front without need for any disassembly of the conditioner, obviously has its advantages.

instructions for its use. Standard 120-56 provides a relatively easy method for calculating the required Btu capacity of a conditioner needed for a particular location. Among the factors that are considered are exposure, amount of shade, type of construction, amount of insulation, number of people, and electrical equipment in use.

Air conditioners as heaters

Some models of window air conditioners are supplied with resistance heating elements which can



Compactness is the byword in many of the 1958 air conditioners. The Vornado 1-horsepower model illustrated is smaller in size but provides noticeably more cooling capacity than a comparable model built two years ago.

be used to provide a little heat when the weather is chilly. Supplying of heat by passing current through an electrical resistor is an extremely costly process and over most of the U.S. is uneconomical, except during mild weather when little heat is required. For 1958, however, there is a growing trend to use a relatively new principle in which the conditioner operates "in reverse" and functions as a "heat pump" to remove heat from the outside air and supply that heat to the room. During warm weather, when the room must be cooled, the evaporator coils on the room side remove heat from the room air and transfer it to the condenser coils located outside, where it is dissipated. If the outdoor temperature drops, as in spring and fall or on chilly summer evenings, and there is need for heat in the room, a valve operates automatically and changes the normal operation of a conditioner so that it becomes a heat supplier instead of a heat remover. In general, heat pumps are not too satisfactory if the outside temperature drops below about 40°F.

The high cost of trying to supply heat by resistance heating (current-carrying wire which becomes hot) is indicated by the fact that it takes about one cent's worth of electricity to deliver 1700 Btu by this method. A cent's worth of fuel oil, on the other hand, will supply about 7000 Btu (oil at 15 cents per gallon). With the air conditioner converted to a heat pump, however, the conversion of electricity to heat is not direct and wasteful, but a process which permits a cent's worth of electricity to provide 3500 to 5000 Btu, an improvement of 2 to 1 or possibly 3 to 1. This method of heating makes electricity not quite competitive with other fuels but not far from it.

Noise

With persons to whom noise is no particular problem either in work or sleeping, the problem of selecting a conditioner from the standpoint of noise produced may not be important, if the conditioner is to be used in a home well removed from others. On the other hand, a noisy conditioner may present a serious disturbance to a person sleeping in a room in a house close by and on the side of the house nearest the conditioner. This is a great problem in large apartment houses where windows are separated by only a narrow courtyard.

The principal source of disturbing noise inside the room is the fan which is used to recirculate the room air through the evaporator coils. Generally, a so-called squirrel-cage-type fan makes less noise than one using propeller-type blades. The speed of the fan is also to be considered; most manufacturers use the squirrel-cage type fan running at a speed of slightly over 1000 revolu-

tions per minute on models rated up to about 12,000 Btu.

In some of the new models which feature compactness, a smaller squirrel-cage fan has been used to save space. In these models, the usual practice calls for use of a higher fan speed—usually about 1500 revolutions per minute—and therefore higher air velocity, with an attendant increase in noise level to obtain circulation of an adequate amount of air per minute.

There are other sources of noise than the fan which may become irritating to a person trying to sleep: rattles from parts that are loose or not firmly secured in position, such as grilles, louvers, control shafts, tubing, and filters. It is, of course, possible, too, for some of the noise created by the compressor and the condenser fan to be heard in the room if the conditioner is not properly installed and tightly anchored to the window frame or other opening in which it is placed. Often, too, a fan blade will become loose on the motor shaft and strike the conditioner housing. Most difficulties of this general kind can be eliminated by a competent serviceman and will not recur if the conditioner is basically well constructed.

CR's tests

With the adoption of ARI Standard 110-58, previously mentioned, performance claims and specifications of any manufacturer can be checked by any other manufacturer or testing laboratory and their accuracy determined. Because such check-

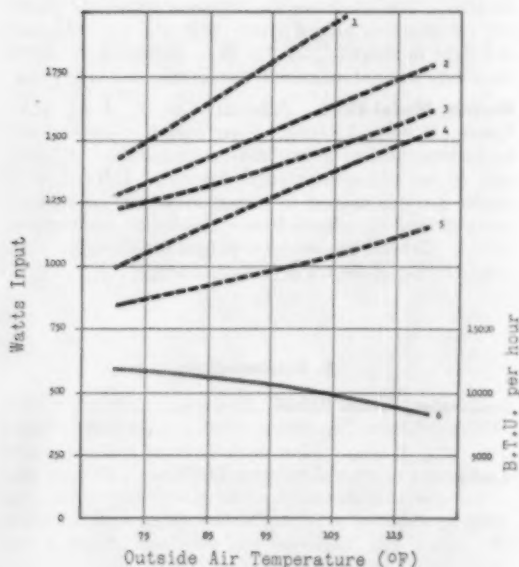
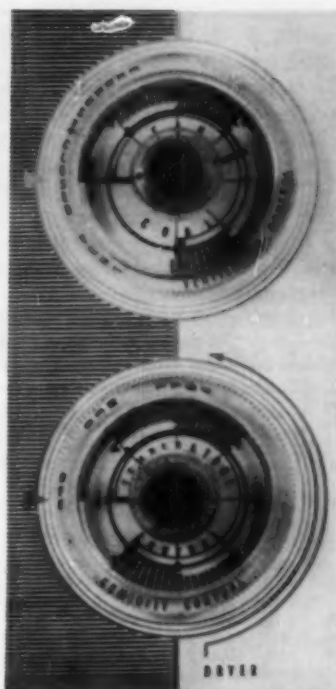


Figure 1



The controls on the RCA Whirlpool would present difficulties to a person not willing to figure out their various functions and combinations; they require close observation on the part of the user.

ing is possible, wild and unrealistic claims for cooling and dehumidifying capacity are on their way out. Indeed, CR's tests on the 1958 models indicate that manufacturers' published figures for cooling capacity are, in the main, sufficiently accurate to serve as satisfactory guides for buying.

The figure for capacity as given in the specification, however, applies only when the conditioner is operated under the specific test conditions of 95°F outdoor temperature while maintaining a temperature of 80°F indoors with controlled and generally low values for relative humidity prevailing. It should be noted that at temperatures above 95°F (or during very humid weather) the effectiveness of a conditioner may fall considerably below that normally to be expected. (See curve number 6 in Figure 1, which is a composite cooling capacity curve for the *Gibson*, *Vornado*, *Airtemp*, and *Fedders* conditioners in a range of outdoor temperatures from 70 to 120 degrees.)

To most homeowners, the amount of electricity required to produce a given amount of cooling is a matter of considerable importance. Curves numbered 1 to 5 in Figure 1 show how the wattage inputs to five conditioners increased as the outside temperature increased. While the *Fedders* 812SS-2

is comparable in cooling capacity, it can easily be seen (curve No. 5) that it is less costly to operate than the others.

The calculations in the table following are based upon three months' operation of each conditioner included in Figure 1 with outside temperatures varying between 80 and 100 degrees, with an average of 90 degrees. The figures are meant only to give the reader some idea of the cost of electricity for operating typical room air conditioners and to show how it can vary with the choice of the conditioner.

Model and Curve No.	Operating time		
	25%	50%	100%
Mathes 1	\$18.50	\$37.00	\$74.00
Gibson 2	16.20	32.40	64.80
Vornado 3	14.60	29.20	58.40
Airtemp 4	13.25	26.50	53.00
Fedders 5	10.25	20.50	41.00

A. Recommended

Admiral, Model 100L12 (Admiral Corp., Chicago 47) List, \$310. Rated 115 volts, 12 amp. Single knob and six push buttons for control. All were easy to use and well identified. The front of the plastic grille is removed to permit inspection or replacement of the long life filter. Cooled air can be projected in an upward or downward direction only; the grille front is inverted to accomplish the change in direction. The condenser was not protected, undesirable. General construction judged good. Efficiency in use of electricity, average.

Airtemp, Model 1600-21-39 (Airtemp Div., Chrysler Corp., Dayton 1) No list price. Rated 115 volts, 12 amperes. The three control knobs were easy to use and well identified. The disposable filter was easily removed from behind the plastic grille. The condenser was not protected; CR prefers use of a protective grille to reduce possible damage if a child's ball or some other object should strike the condenser. General construction judged good. Efficiency in use of electricity, average.

Amana, Model 100A2N (Amana Refrigeration, Inc., Amana, Iowa) \$280. Rated 115 volts, 11 amp. Two control levers were easy to use and satisfactorily identified. The plastic and metal grille must be removed to permit inspection or replacement of the electrostatic (long life) filter. The condenser was protected by a grille, desirable. General construction judged good. Efficiency in use of electricity, average.

Amana, Model 100C2N (Amana Refrigeration, Inc.) \$250. Rated 115 volts, 12 amp. Two knobs and toggle

switch were used to control different functions. All were easy to use and well identified. The plastic grille must be removed to permit inspection or replacement of the long life plastic filter. The condenser fins were protected, desirable. General construction judged good. Efficiency in use of electricity was above average.

Amana, Model 100LC2N (Amana Refrigeration, Inc.) \$180. Rated 115 volts, 7.5 amp. Similar to the *Amana 100C2N* and comments in that listing apply except that, with the *100LC2N*, efficiency in use of electricity was average. The *100LC2N* was the only conditioner tested which did not have a thermostat, and provide inlet and exhaust air vents which have no great usefulness.

Fedders, Model 812SS-2 (Fedders-Quigan Corp., Maspeth, L.I., N.Y.) List, \$320. Rated 115 volts, 7.5 amp. Four push buttons and three levers were used to control the different functions; all were easy to use and well identified. The plastic grille must be removed to permit inspection or replacement of the disposable-type filter. The condenser was protected by a grille, desirable. General construction judged good. Efficiency in use of electricity, highest of the conditioners tested.

Frigidaire, Model AI-100-50 (Frigidaire Div., General Motors Corp., Dayton 1, Ohio) List, \$325. Rated 230 volts, 5.8 amp. Three knob controls were well identified and easy to use. The lower part of the front grille opens to permit inspection or replacement of the disposable filter. The condenser fins were protected. General construction judged good. Efficiency in use of electricity, average.

Welbilt, Model 8WJ2 (Welbilt Corp., Maspeth 78, L.I., N.Y.) List, \$200. Rated 115 volts, 7.5 amp. Four push buttons and two knobs were used to control different functions. All were easy to use and satisfactorily identified. The plastic grille must be removed to permit inspection or replacement of the long life plastic filter. The condenser fins were not protected. General construction judged good; unit was very compact and light in weight (only 125 lb.). Efficiency in use of electricity was not measured, but is estimated as average.

Welbilt, Model 8W02 (Welbilt Corp.) List, \$230. Rated 115 volts, 7.5 amp. Four push buttons and two knobs were used to control different functions. All were easy to use and satisfactorily identified. Lower half of plastic grille is opened to permit inspection or replacement of long life plastic filter. Condenser fins not protected. General construction judged satisfactory. Efficiency in use of electricity, above average.

B. Intermediate

Coolerator, Model C10A2 (Loneran Coolerator Div., McGraw-Edison Co., Albion, Mich.) List, \$380. Rated 230 volts, 8 amp. Five push buttons and concentric knobs used to control different functions. All were easy to use and well identified. The plastic and metal grille must be removed to permit inspection or replacement of the filter. The condenser fins were not protected, undesirable. General construction judged average. Efficiency in use of electricity, below average.

Gibson, Model 1-5812 (Gibson Refrigerating Co., Div. of Hupp Corp., Greenville, Mich.) No list. Rated 115 volts, 12 amp. Push button, knob, and slide controls worked satisfactorily. Legibility of markings, good. The plastic grille must be removed to permit inspection or replacement of the long life filter. No protective grille for condenser, undesirable. General construction was judged only fair. Efficiency in use of electricity, average.

Mathes, Model 142C (The Mathes Co., Fort Worth 5, Tex.) \$300. Rated 230 volts, 8.2 amp. The three knob controls operated satisfactorily, and their markings were legible and easily understood. The wooden grille must be removed to permit inspection or removal of the long life filter. The condenser was protected, desirable. General construction judged satisfactory. This unit was, compared with some others, inefficient in its use of electricity.

RCA Whirlpool, Model I-8100-2 (Whirlpool Corp., St. Joseph, Mich.) No list price. Rated 115 volts, 12 amp. Concentric knobs were used to control the different modes of operation (see photo on page 9). The thermostat and

humidifying controls were easy to use; the fan and ventilation controls were difficult to turn. All were poorly identified and seemingly complicated. The plastic grille is removed to permit inspection or replacement of the long life aluminum filter. The condenser fins were protected, desirable. Construction was judged average. Efficiency in use of electricity, slightly above average.

Vornado, Model D100D-1 (The A. O. Sutton Corp., Inc., Wichita 1, Kans.) No list. Rated 115 volts, 12 amp. Five push buttons were easy to use, but two knobs which controlled thermostat and air exhaust were small and difficult to turn with the finger tips. All controls were well identified. Disposable filter is easily removed from front without need to detach plastic grille. The filter has the disadvantage that any dust or dirt it collects is in plain sight in the room. No protective grille for the condenser, undesirable. General construction judged satisfactory. Efficiency in use of electricity, average.

Welbilt, Model 8WU2 (Welbilt Corp.) List, \$270. Rated 115 volts, 12 amp. Similar to the *Welbilt 8W02* in size, and comments regarding the *8W02* apply except that efficiency in use of electricity was only average.

Some of the more important characteristics of the air conditioning units tested by Consumers' Research

	Width, inches	Height, inches	Depth, inches	Measured watts input during operation at outdoor temperature of		Rated cooling capacity, Btu per hour	Btu per watt-hour at 95°, as measured	Room air circulation in cubic feet per minute as measured	Judgment of relative noise during operation	
				85°	100°				Indoors	Outdoors
Admiral 100L12	26.3	14.0	17.0	1190	1320	8,200	7.0	310	Mod.	Mod.
Airtemp 1600-21-39	26.5	15.6	31.3	1170	1330	9,000	8.0	400	Mod.	Mod.
Amana 100C2N*	25.0	13.3	16.8	1150 (Est.)	1250 (Est.)	8,500	7.0 (Est.)	N.A.	Quiet	Quiet
Amana 100LC2N	25.0	13.3	16.8	870	940	6,800	9.0	300	Quiet	Quiet
Amana 100A2N	25.0	15.0	28.0	1130	1280	9,000	7.0	385	Mod.	Mod.
Coolerator C10A2	26.4	15.8	17.9	1470	1620	9,900	6.5	340	Mod.	Noisy
Fedders 812SS-2	27.0	16.3	17.8	920	1030	9,000	11.0	310	Mod.	Mod.
Frigidaire AI-100-58	25.0	20.1	15.8	1310	1430	10,000	7.0	350	Mod.	Mod.
Gibson 1-5812	23.8	17.2	23.9	1460	1600	10,700	7.0	380	Noisy	Noisy
Mathes 142C	27.9	21.5	28.0	1700	1860	14,000	6.0	450	Mod.	Noisy
RCA Whirlpool I-8100-2	25.9	17.6	19.9	1180	1300	9,850	8.5	400	Noisy	Noisy
Vornado D100D-1	26.6	16.6	16.5	1320	1440	9,800	7.5	300	Noisy	Noisy
Welbilt 8WJ2*	22.5	13.4	15.5	800 (Est.)	900 (Est.)	6,300	7.5 (Est.)	N.A.	Mod.	Noisy
Welbilt 8W02	26.5	18.8	16.5	1070	1160	8,800	8.5	350	Mod.	Noisy
Welbilt 8WU2	26.5	18.8	16.5	1480	1660	11,500	7.0	375	Noisy	Noisy

* These models were not received in time for all tests to be completed.

Est.—Estimated on basis of information available; Mod.—moderate; N.A.—not available.

Scouring powders

*Some scour too well
for the good of your
kitchen and bathroom fixtures*

IN THE BELIEF that they are merely cleaning their porcelain sinks and bathtubs, millions of women are actually removing the finish and luster from these fixtures. While the principal objective in using a scouring powder is to aid in the cleansing of stained or greasy surfaces, many scouring cleansers are so abrasive that they literally and rapidly scratch away the finish. The surface of a porcelain-enameled appliance, sink, or lavatory, for example, which is a kind of glass, will lose its high luster and in time become dull and old- and worn-looking, and hard to keep clean and presentable, if it is regularly scoured with a harsh abrasive cleanser. Depending on the type of scouring powder used and the manner and frequency of its use, marked dulling of the surface can occur on a new fixture in a relatively short period of time—within six months, even. An ideal scouring powder will remove any accumulation of dirt and stains from any surface safely, efficiently, and economically. On the other hand, a scouring powder that is safe for the surface will not cleanse very quickly, with one or two fast strokes of the cloth or sponge, as cleanser advertising often implies. Speed and gentleness cannot be combined, unfortunately, in a scouring powder for finely finished surfaces.

The abrasive material in scouring powders is usually finely ground silica or sand. In the past scouring powders also contained soap; now many contain a synthetic detergent. Synthetic detergents do not form insoluble curds, as does soap in hard water, and are more effective in cutting grease.

How to care for porcelain, vitreous china, and enamel surfaces

It is important to understand that the fine, smooth porcelain and vitreous china surfaces are a kind of glass. Do not use an abrasive cleanser on new porcelain or vitreous china surfaces, such as are found on a sink, bathtub, lavatory, or toilet bowl, kitchen range, and some washers and dryers. Likewise do not use an abrasive cleanser or scouring powder on baked-on enamel, found on refrigerators, freezers, washers, dryers, etc. The principles of care applying to articles made of glass and china apply equally to the surfaces mentioned.



Remember, repeated use of harsh abrasives will leave an infinite number of tiny scratches; these in time build up to affect the whole surface and dull the brilliant, smooth finish. Once the surface has been scratched, it becomes increasingly difficult to remove dirt and stains, and finally one *must* use a fairly harsh abrasive, such as one of those listed herein under *B. Intermediate*, in order to get the surface clean again.

New fixtures can be cleaned by washing with warm water to which either a soap or synthetic detergent has been added; in hard-water areas, synthetic detergents work better. With such careful cleansing, one may get along for years before any kind of scouring powder is needed. If it should become necessary to remove stubborn dirt or stains that cannot be washed off with a detergent solution, use a scouring powder such as *Bon Ami* that is known to be mild, and free from harsh grit, and limit the use of any scouring agent to only that particular occasion.

It is especially important to avoid the use of a harsh abrasive on appliances that have baked-on enamel surfaces, since a harsh cleanser could very quickly wear through the thin enamel coating, which is a kind of paint, to the metal beneath. As with porcelain finishes, wash enameled articles with either a soap or a synthetic detergent in water.

In the laboratory tests conducted by Consum-

ers' Research on 11 popular household cleansers and scouring powders, all of the cleansers tested, except *Bon Ami*, caused considerable frosting (dulling) of a smooth glass surface and some also had a marked scratching effect (see photos below).

For those who wish to mix their own cleanser, a mixture of a fine grade of whiting, 9 parts, and a powdered synthetic detergent of any of the well-known kinds, 1 part, has been found satisfactory for new surfaces or surfaces not seriously dulled by prior use of scouring powders. Whiting may be purchased in almost any hardware store.

A. Recommended

Bon Ami (The Bon Ami Co., 17 Battery Pl., New York 4) 14c for 12 oz. (18.7c per lb.). 3

B. Intermediate

The following contained abrasives too harsh for new porcelain (vitreous enamel) finishes, and are not recommended for use on smooth or finely finished surfaces of any kind.

Bright Sail (Distributed by The Great Atlantic & Pacific Tea Co., N.Y.C.) 8c for 14 oz. (9.1c per lb.). Best in the *B-Intermediate* group. 1

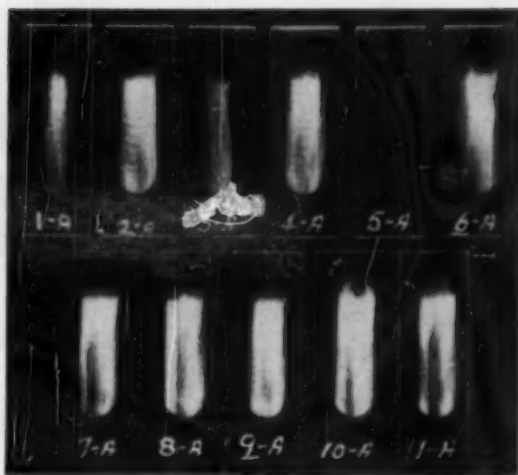
Speedup (Distributed by American Stores Co., Philadelphia) 10c for 1 lb. 2 oz. (8.9c per lb.). 1

Babbitt's (B. T. Babbitt, Inc., 386 Fourth Ave., N.Y.C.) 9c for 14 oz. (10.3c per lb.). 2

Bab-O (B. T. Babbitt, Inc.) 16c for 1 lb. 5 oz. (12.2c per lb.). 2

Blue Dutch (Purex Corp., Ltd., 9300 Rayo Ave., South Gate, Calif.) 15c for 1 lb. 6 oz. (10.9c per lb.). 2

Kirkman (Colgate-Palmolive Co., 300 Park Ave., N.Y.C.) 10c for 14 oz. (11.4c per lb.). 2



The glass slides show the amounts of dulling or frosting of a smooth surface caused by the various kitchen cleansers under the same conditions. In the top row, from left to right, Ajax, Babbitt's, Bright Sail, Bab-O, Bon Ami, Comet. In the bottom row, from left to right, Blue Dutch, Kirkman, Speedup, Kitchen Klenzer, Cameo. Note: Ajax produced little frosting, but many deep scratches.

Kitchen Klenzer (Fitzpatrick Bros. Inc., 1300 W. 32 Pl., Chicago) 9c for 13 oz. (11.1c per lb.). 2

C. Not Recommended

The following three scouring powders produced severe scratching on glass surfaces.

Ajax (Colgate-Palmolive Co.) 17c for 1 lb. 5 oz. (12.9c per lb.). 2

Cameo (Cameo Corp., Chicago 32) 10c for 14 oz. (11.4c per lb.). 2

Comet (Procter & Gamble Co., Gwynne Bldg., Cincinnati) 22c for 1 lb. 5½ oz. (16.4c per lb.). 3



At the left, a glass surface before being rubbed with a scouring powder; at the center, a similar surface after scouring with Bon Ami; at the right, after scouring with Ajax. The above three illustrations show the relative degrees of deep scratching that can occur with a mild and a harsh scouring powder. Magnification 95x.



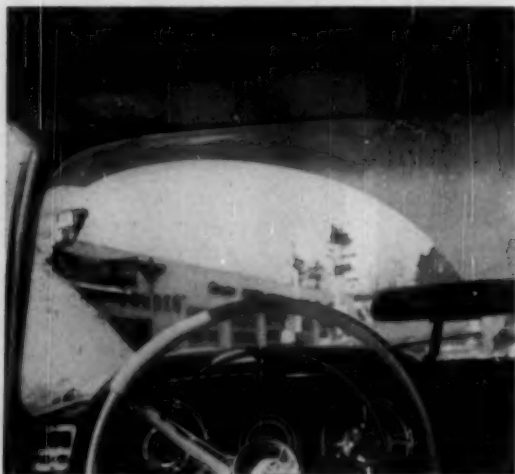
Chrysler Windsor

THE *Chrysler Windsor* is very similar to the *DeSoto Firesweep* on which there was a report in the May CONSUMER BULLETIN. The *Windsor* has the same wheelbase, approximately the same rated horsepower, and the same body size. The chief differences are in the instrument panel, front grille, and the taillight assembly. The *Windsor* is about 175 pounds heavier than the *DeSoto* and is priced about \$300 higher. In acceleration, the *Windsor* gave approximately the same performance as the *DeSoto Firesweep*, but its miles per gallon of gasoline were about 10 percent lower. The car tested by Consumers' Research was a *Chrysler Windsor* 4-door sedan with *TorqueFlite* transmission, power brakes, and power steering.

While riding quality was very good on smooth roads, on rough roads there was pronounced steer-

ing wheel shock and "wheel hop." Road rumble was very noticeable on rough roads. Cornering ability was good, and stability was good at reasonable speeds; at high speeds, due to the oversensitive power steering, stability was not so good. CR has previously criticized the *Chrysler* type of power steering for its lack of "road feel."

The service brakes were very good, with no abnormal brake fade. The parking brake which acts on the drive shaft should *never* be used as an emergency brake to stop the car, particularly at moderate or high speeds. The lack of an effective emergency brake, able to take the stresses imposed when it must be used in case of failure of the service brakes, is a serious weakness of Chrysler-built cars. The parking brake handle pulls out from the dash and, because of its position and



The Chrysler speedometer, poorly located and partly obscured by the steering wheel.



In rolling the window up or down the driver's hand strikes the light switch on the Chrysler Windsor.

projection, could be a hazard for some people in entering or leaving the car. The location of the headlight control knob is such that, in attempting to roll the window up or down, the driver's hand strikes the knob. The speedometer is located on the dash to the left of the steering wheel, where it is difficult to read; from a safety standpoint, this is a poor design, for a clock has been placed in the quickly readable location customarily reserved for the speedometer. There were no fender or hood ornaments; omission of these is desirable and in no way impairs the appearance of the car. The Windsor uses an ammeter and oil-pressure gauge instead of the much less desirable indicating lights. Interior dimensions, headroom, leg room, etc., were good in comparison with most modern cars. The front vent panes were small, and awkward to open and close.

Performance on road tests

Acceleration times were: from 0 to 30 miles per hour, 3.8 seconds; from 0 to 60, 10.9 seconds; from 20 to 50, 5.7 seconds; from 40 to 60, 5.9 seconds. The times given for 0 to 30 miles per hour and 0 to 60 miles per hour are not a measure of this car's potential ability to accelerate. Actually, because of the car's high-torque at low revolutions per minute, the wheels spin for some time before traction is obtained, and the duration of this spinning period will vary with the coefficient of friction of the tires on the road. This excessive torque at starting is a characteristic of most of the present-day overpowered cars, and shortens the life of tires, but far more important is the fact that the high torque available at low car speeds can be extremely hazardous on wet or icy roads.

Gasoline mileage under test conditions

At a constant speed of 50 miles per hour, 15.6 miles per gallon.

Speedometer errors

Indicated speed, m.p.h.....30	50
Actual speed, m.p.h.....28.5.....	47

Odometer

Approximately 10 percent fast.

* * *

The Chrysler Windsor was judged to be an "oversensitive" car, particularly when equipped with power steering, with too much torque at the rear wheels; difficult to control in starting and under emergency conditions. Definitely not, in our opinion, a car for the conservative family man.

Chrysler prices

Chrysler Windsor 4-door sedan, \$3129. Torque-Flite transmission, \$220. Power steering, \$108.



The emergency brake release on the Chrysler Windsor is a potential hazard.

Power brakes, \$40. Radio, \$100. Heater, \$93. Note that prices do not include freight charges, dealer handling charges, and state and local taxes.

Specifications

Taxable horsepower	49.7
Taxable weight, pounds	3895
Engine	
Cylinder arrangement	V-8 overhead valve
Piston displacement, cubic inches	354
Rated horsepower at stated rpm.	290 at 4600
Compression ratio	10 to 1
Oil filter	Full flow
Gasoline required	Premium
Cooling system capacity with heater, quarts	22
Chassis and body	
Wheelbase, inches	122
Over-all length, inches	218
Width, inches	80
Height, inches	57
Tires	8.00 x 14
Brake area, square inches	230
Brake factor*	50
Minimum road clearance, inches	5.5
Turning diameter, feet	43.6
Steering wheel turns, full left to full right	5.2 (3.5 with power)
Other details	
Battery	12-volt 60-amp.-hr.
Gasoline tank, gallons	23
Windshield wipers	Electric
Curb weight of car tested, pounds	4095

* Brake factor is a number indicative of the probable life of brake linings. The higher the number, the longer the probable life of the brakes.

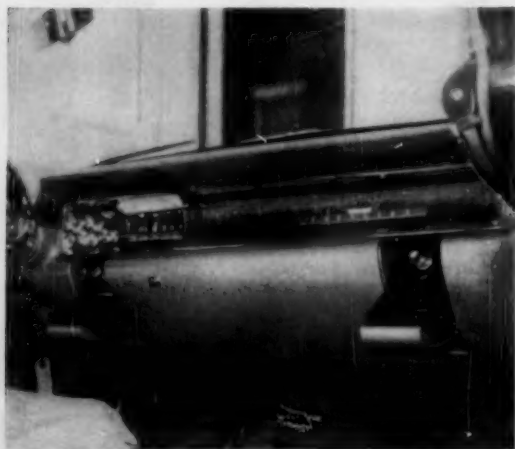


Cadillac 62

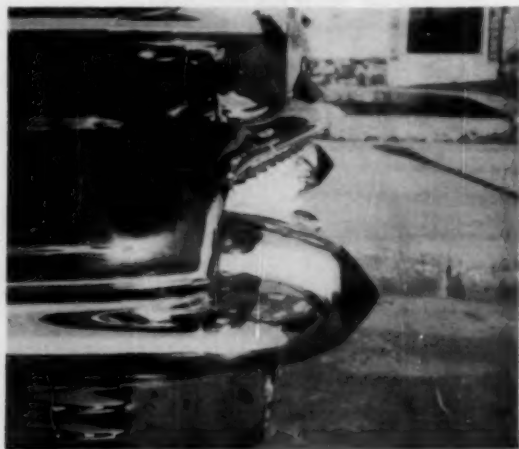
THE *Cadillac* has been built up by clever advertising and equally clever salesmanship to be the car of prestige, the car which makes its owner a man of distinction and a leader in the social life of his community. *Cadillacs*, however, have not been free from criticism. For example, 1956 and 1957 models were reported by Consumers' Research to have riding and handling qualities which fell short of what should be provided in a car in the *Cadillac* price class. We are pleased to be able to report that the 1958 model is much improved in both of these respects. The ride was very smooth and well controlled on all types of roads; in fact, it was judged superior to that of the *Buick* car which CR tested, which had air suspension and gave a very good ride. Cornering ability and stability on curves of the *Cadillac* at

normal speeds were also very good. There was some tire rumble transmitted to the passengers on coarse-surface roads.

The improved riding qualities appear to have been achieved by a new four-link rear suspension and the use of coil instead of leaf springs in the rear. The test car was a *Model 6237 Club Coupe* with *Hydra-Matic* transmission, power steering, and power brakes. In acceleration, the *Cadillac* was one of the faster cars tested, and, of course, it had more than adequate power for any circumstances likely to arise. Gasoline mileage at a constant speed of 50 miles per hour was 16 miles per gallon, slightly less than that of last year's; the difference may have been due to the small mileage on the car at the time of test. (The higher 10.25 to 1 compression ratio with an engine of the



The ash trays on the Cadillac are a potential hazard to the front seat passenger in the event of a collision.



Note the useless and dangerous bullet-nosed bumper guards on the Cadillac.

same displacement should have given better mileage than last year's model.) Miles per gallon under normal road conditions may be expected to be somewhere between 11 and 14, with a wide variation to be expected, depending upon types of driving and driving speeds.

Power brakes were positive and fast acting, and there was no abnormal fading with repeated stops from high speed. The power steering did not have the undue sensitiveness which characterizes some makes, and recovery on turns was very good. Indicating lights were used instead of the much more desirable oil-pressure gauge and ammeter, a surprising economy which one hardly expects on a high-priced car. The time-tried and highly desirable ammeters and oil-pressure gauges which show a number on a dial give the driver vitally important information which is quite unavailable to him through the ordinary indicating lights now adopted—as a cost-saving device—on most cars. There were some annoying reflections from the chrome trim of the instrument cluster. Cadillac is among the car manufacturers who still allow the style experts to dictate design where the safety engineer should have the last word, and thus the front bumper still has the useless bullet-nosed bumper guards and the hood carries two dangerously sharp ornaments.

Performance on road tests

Acceleration times were: from 0 to 30 miles per hour, 3.7 seconds; from 0 to 60, 10.2 seconds; from 20 to 50, 6.4 seconds; from 40 to 60, 5.7 seconds. On fast acceleration, the rear wheels of the Cadillac did not spin as wheels do with many of the overpowered cars that have less weight on the rear wheels.

Gasoline mileage under test conditions

At a constant speed of 50 miles per hour, the gasoline mileage was 16 miles per gallon (somewhat low, but see text). This was better than the Buick Super which gave only 14.8 miles per gallon.

Speedometer errors

Indicated speed, m.p.h.	30	50
Actual speed, m.p.h.	28	46

Odometer

Approximately 11 percent fast.

* * *

The 1958 Cadillac 62 is a very good luxury car, with firm well-designed seats, high quality interior and exterior trim and fabrics. The car exhibits good taste throughout and lacks most of the over-decorated and gaudy features present in some makes and models.

Cadillac prices

Cadillac 62 two-door Hardtop Coupe, \$4784; four-

door Hardtop Sedan, \$4891; Cadillac 60 Fleetwood Special Sedan, \$6232; Cadillac 75 8-passenger sedan, \$8460. Radio, \$164 or \$246. Heater and defroster, \$129 (\$179 on Cadillac 75). Air suspension, \$214. These prices do not include freight charges, dealer handling charges, state and local taxes. On all models, automatic transmission, power steering, and power brakes are standard equipment.



The emergency foot-operated brake is difficult to operate and had no warning bull's-eye on the dashboard to notify the operator when the emergency brake was on, as would be expected on a high-priced car like this Cadillac.

Specifications

Taxable horsepower	51.2
Taxable weight, pounds	4675
Engine	
Cylinder arrangement	V-8 overhead valves
Piston displacement, cubic inches	365
Rated horsepower at stated rpm.	310 at 4800
Compression ratio	10.25 to 1
Oil filter	Partial flow
Gasoline required	Premium
Cooling system capacity with heater, quarts	20.7
Chassis and body	
Wheelbase, inches	129.5
Over-all length, inches	217
Width, inches	30
Height, inches	59
Tires	8.00 x 15
Brake area, square inches	210
Brake factor*	39
Minimum road clearance, inches	6.4
Turning diameter, feet	N.A.
Steering wheel turns, full left to full right	4
Other details	
Battery	12-volt 70-amp.-hr.
Gasoline tank, gallons	20
Windshield wipers	Vacuum
Curb weight of car tested, pounds	4875

* Brake factor is a number indicative of the probable life of brake linings. The higher the number, the longer the probable life of the brakes.

Are middle-priced cars on their way out?

Poor sales of middle-priced cars and substantial and increasing sales of small foreign cars mark a new trend in Americans' car buying habits

NOT TOO MANY YEARS AGO, motorists who wanted to obtain more horsepower, more room, more comfort, better finish, and better mechanical features than were available in the low-priced cars bought a car in the middle- and high-priced groups.

In those days, *Chevrolet*, *Ford*, and *Plymouth* were fairly small, compact cars priced for persons of modest means, and offering essentially low-cost transportation. Today the picture has changed entirely. *Chevrolet*, *Ford*, and *Plymouth*, by adding power and costly accessories, have encroached deeply upon the middle-priced field, and it is possible to buy any of these cars with all the added equipment and features formerly available as standard equipment or extras only on the more expensive cars in the *Buick*, *Dodge*, *DeSoto*, *Pontiac*, and *Mercury* class. The result has been a drastic curtailment in 1958 in production of nearly all the middle-priced cars because of poor sales. *Buick* once had third place in sales, but now its production is said to have been cut 40 percent from 1957; *DeSoto* is down 75 percent, *Dodge* 70 percent, *Mercury* 65 percent, *Pontiac* 30 percent, and sales of the *Edsel* this year have been small (about 1 percent of the total market) and far below what was anticipated.

Strangely enough the biggest sales of *Chevrolet*, *Ford*, and *Plymouth* are in their more expensive models, surely an implication that many who formerly bought in the middle-priced group have switched to the more expensive models of the low-priced group, partly to save money and partly because the difference in quality, power, features, and comfort between the "low-priced" cars and the middle-priced ones has been so greatly reduced that the "prestige value" of the higher-priced cars has been lost. Then, too, the middle-priced cars when loaded with extras are so expensive that they are being priced out of the market; many consumers have come to feel they might as well have the prestige that attaches to *Cadillac* and *Chrysler* cars if they must pay nearly the top price anyway, for a "middle-bracket" car. Many buyers have acquired small foreign cars, often priced \$300 or more under the *Ford-Chevrolet-Plymouth* level, and these cheaper foreign cars have, surprisingly, come to acquire more prestige value than the middle-priced cars.

It is considered likely that if this trend continues some or many of the cars in the middle-priced range will disappear from the market. It is well to remember that, since automobiles were first built, a very large number of makes of cars have dropped from the market and become orphans, recent casualties being *Crosley*, *Kaiser*, *Frazer*, *Henry J*, *Hudson*, and *Willys*. By 1948, only 10 manufacturers were in business producing 20 different "makes" of cars. This year there are only five manufacturers producing 16 different makes.

A dealer tells all—or nearly all

An interesting sidelight on the confused automobile price situation as reported in the May CONSUMER BULLETIN is a news story of a *Ford* dealer, reported by *Business Week*, who posted notarized photostatic copies of his invoices showing the exact cost to him of each car as equipped ready for sale. His selling price was marked at 4 to 12 percent above the cost price, and far below the factory's "so-called recommended list prices." This dealer who set a good example in the one respect described was, however, making up for his low markup by giving very low trade-in allowances to his customers, so that the net cost of his cars to consumers was about the same as charged by other and competing dealers. These dealers objected strenuously to the publicizing of the amounts they actually paid for cars and particularly their costs on items of optional equipment, such as automatic transmissions, power brakes, power steering, special light clusters, and other gadgets, on which the profit rate is a good deal higher than on the car itself; in due time the promotion scheme described was discontinued.

From the public's standpoint, the *Ford* dealer was nevertheless performing a real public service, for it can only be troublesome and confusing to consumers to be quoted fictitious list prices, rendered the more confusing by the juggling of turn-in values to make the customer think he is getting a specially favorable treatment from a particular dealer. Actually, of course, that dealer's net pricing practices were no more favorable to his customers than were those of his competitors.



Ewing Galloway

The facts on swimming pools

For the country or suburban dweller who would like to own a pool but wishes to know about pools before embarking on the project

The accompanying report aims to summarize various data on swimming pools and to present information of importance bearing on related questions—social and neighborhood factors, problems of maintenance, expense of operation, and other subjects often overlooked, or given close consideration only after the pool has been completed.

If you plan to build a pool, the information in this article may save you much money, time, and trouble. We do not want to discourage you from going ahead with what under proper circumstances can be a highly beneficial home improvement, but rather to help you as a prospective pool owner to acquire a pool with full knowledge of the facts, favorable and unfavorable, so there will be less chance of disappointment.

Our discussion deals primarily with pools which are excavated below the surface of the earth and are of a permanent type. The above-ground and inflatable pools are a different sort of problem. There will be a brief discussion of these in a second article to follow in the July Consumer Bulletin. The final instalment will also deal with costs of upkeep and care of a pool.

THE NUMBER of families who are building or planning for a backyard pool is constantly increasing. That's all to the good! A private swimming pool is an important adjunct to better living—the center of gay social gatherings, a ready means of healthful sport, providing added beauty and interest for the home.

A good pool represents an investment of \$2000 to \$8000 or more, and on that account warrants careful study before the funds are committed or a contract signed. There's the possibility of costly error, because the buyer of a swimming pool lacks the usual guideposts to good shopping. Once the pool is contracted for, there is no chance to trade it for another style or size.

Pool builders and equipment manufacturers offer much information for the prospective purchaser in the form of booklets and catalogs. Before studying these, however, the homeowner must make the basic decisions: Should he have a pool? how much to spend? what type and size?

Because the building of pools in considerable numbers is a new development, trade names of various manufacturers and equipment are not yet well-established, and there is little to go on in making a choice. Besides, many contractors still have a good deal to learn in this field before they can do a fully satisfactory and long-lived job. There is also the matter of financial responsibility; one must be very careful not to give the contract to a "fast buck operator" or a fly-by-night concern using high-pressure salesmanship, which is not interested in swimming pools but only in a new way to make money fast. A guarantee will be of no use to you if the company isn't there to make good on it.

An important element in planning any construction is to see what has been done before; with swimming pools this is difficult, except perhaps in the Southwest where private pools have become almost commonplace. In other sections, private pools still are mostly few and far apart; their owners naturally enough do not welcome a parade of curious viewers and questioners. Thus, information of value can be acquired only from owners if you are lucky enough to know such persons and they are willing to give time to answer questions about their experience.

The social factors

Social factors in the owning of a swimming pool involve a considerable responsibility—sometimes even call for a degree of diplomacy.

On the plus side—the pool will justify itself to a great extent by eliminating a good deal of auto driving in heavy week-end traffic to beaches and resorts. It tends to keep the family together, at home, and may even afford considerable saving in eliminating fees to camps and reduced vacation costs. Children may be content to stay at home, happily occupied around a pool, rather than go off each summer.

For the older folk, the pool-side is restful in almost the same hypnotic manner as the winter fireside. A pool is a great attraction for teenagers' parties, particularly where there's a dancing area on the lawn.

But there's a price to be paid for all this, beyond the initial cost.

Neighbors must be considered in your plans. Will some of them have vigorous objections to your pool and what it does to their quiet and privacy? That depends largely on how much land there is around your home. In rural and even suburban areas, the reactions of neighbors are not likely to be a problem. But in small city lots, the neighbors may well take a determined or unpleasant stand for one reason or another. They may be fearful of danger to their children

resulting from the temptation to "sneak" a swim when no one is around. The neighbors may also be concerned about possible pool-side parties with noise and bright floodlighting until early hours of the morning. Such disturbance of normal hours for rest and sleep can present a serious problem to persons who do difficult or close work, either at home or at the office.

Animosity of neighbors may materially affect the possible pleasures of pool ownership. Of course, much depends on your local relationships and the location of the property. If there are doubts in your mind, it will be worth your while to sound out the immediate neighbors regarding their reaction to your plans.

Supervision. One thing you must decide firmly even before contracting for a pool: There must be constant supervision and watchfulness by a responsible adult when the pool is used by your youngsters' friends or neighborhood children. Time limits must be set and strictly adhered to. You are responsible for the safety and welfare of any child who is on your property with or without your permission.

Fence. Any pool is a natural magnet to children. In some, perhaps most, communities, local ordinances may require high protective fencing around the pool or around the entire lot in which it is set. Several pool owners have reported that they are unable to make any trips away from home because they fear to leave the pool unattended. You or your near-by neighbors may not like the idea of a fence, but it will be necessary, and it will be expensive. Plastic covers may be used to cover the pool when it's not in use, but these are unwieldy to put on and remove, and do not, of course, afford reliable, sure protection.

Resale value of home. Salesmen tend to stress increased value of your home to the extent of the investment in a pool, but we advise that the homeowner should give no weight at all to this claim. While in many instances owners have been reimbursed by added price in selling their home, there is no assurance of any such result. Indeed, the presence of the pool may tend to narrow the market and reduce the possibilities of making an advantageous sale, for some prospective purchasers will not want a pool or to bear the responsibilities of pool ownership.

Types of pools

There are several types of pools suitable for construction in excavations: sprayed concrete (Guniting process), poured concrete, steel tank, flexible plastic liner over wood plank wall or concrete blocks. There are also pools made with concrete blocks and some of molded plastic. Prices of a given type of pool will vary considerably according to

its size, shape, and depth, soil conditions (rocks, sand, trees, etc.), and gradation of land.

When you sign up with a pool contractor, be sure the specific price includes filing approved plans with any town bureau or office having jurisdiction; that the contract provides for desired wall finish or paint coating; certain essential equipment, such as filtering system with motor, approved fully safeguarded electrical wiring for the filtering equipment bringing water and electric lines to pool, approved water and sewer connections, and any lights included with the job (see article in the June 1957 CONSUMER BULLETIN on shock hazards connected with pool electrical installations). The contractor should also provide for removal of excavated soil and insure against personal injury and property damage during construction.

There should also be the usual performance guarantee associated with building construction contracts, and a clear statement of the terms for payment, and what constitutes completion of the job. There are various extras often involved. These should be adequately described and provided for, for example, finished coping, tiling, wall plastering, copper piping, ladders, etc.

Gun-applied-concrete pools. In this process (Gunitite, shotcrete) concrete is sprayed over steel reinforcement made of steel bars supporting wire grids. The system is flexible, permits a wide range of styles and shapes, eliminates joints present when concrete is poured into forms. Plumbing lines are laid in before the concrete work is started. The inside walls are finished with a "plaster" cement which may be a silica or plastic material, troweled by hand to a smooth finish.

On the West Coast, a Gunitite pool of 15 foot x 30 foot size, in oval shape, is quoted at about \$2300. The price includes rustproof filter, brass valves, pump, lint strainer, all copper piping, filter clock control, built-in automatic skimmer, 6-inch waterline tile, colored pre-cast concrete coping, Fiberglass-covered diving board, underwater light, and removal of excavated soil. Electrical connections are extra.

A poured concrete pool runs about the same price as the Gunitite type. With poured concrete, the choice of shape is greatly limited, and deviations from straight lines and square corners will add considerably to the cost. Besides, with poured concrete there is the possibility of weaknesses developing at the expansion joints, which can open up and require repairs, or cracks may show in the walls. The joints between the sections which make up the complete pool must be caulked with special joint sealers, and these must be properly coated before painting is done.

A poured concrete pool, the *Catalina* (Reseda,

Calif.), in 12 foot x 27 foot size, oblong shape, is quoted in California at \$1645 with 100 percent financing and payments of \$32.51 a month. This price includes rustproof filter, motor, brass pump, strainer, copper piping throughout, 6-inch waterline tile, white plaster finish, removal of excavated soil.

Another company (Wahlstrom of Burbank, Calif.) offers a 15 foot x 30 foot pool varying in depth to a maximum of 8 feet in an attractive irregular shape for \$2295, including filter and underwater light.

Steel pools in small sizes are prefabricated and lowered into the excavation; larger pools are formed of plates welded in the excavation. Steel pools run considerably higher in price generally than the other types, but are winning greater favor. Painting is essential to protect against corrosion and the necessity of repainting may add considerably to the upkeep cost.

The steel pool is not subject to wall cracks, which is a major shortcoming of concrete pools, but still may bend, buckle, or twist out of shape because of subsoil hydrostatic pressure, or from sinking of the ground underneath.

Proper painting will keep the steel walls smooth and sanitary; in fact, the steel is likely to be smoother than walls of concrete unless the concrete has been correctly finished off with a smooth "plaster" coating.

Aluminum pools are now offered. They have the chief advantages and disadvantages of steel. A protective coating is required. The type of paint to be used and the correct pre-treatment before painting are problems for the specialist in anti-corrosion protection of metals. Chemicals in the water and the water itself, especially if it has an alkaline reaction, may cause corrosion and pitting of the metal. The seriousness of the difficulty to be expected on this score will depend upon the local water supply.

Pools made of metal or with exposed or bare metal are best not employed at or near the seashore or where salt water must be dealt with as salt greatly increases the corrosion of steel and aluminum and of other metals that might be used for pipe fittings, ladders, rails, etc. There are available special alloys of aluminum that are said to be resistant to corrosion by sea air and salt water.

Plastic liners overcome the problem present with certain types of construction, for example, walls made of concrete blocks. On the other hand, with the use of liners, it is essential that the footings be dependable and that the concrete floor and concrete block walls be strong enough to withstand both inside and outside pressure. A low-cost plastic liner can be used with properly built

and supported block walls and a paved concrete floor.

A liner suitable for swimming pools is made by the Lin-O-Plast Corp., 300 Morgan Ave., Brooklyn, N.Y. The prices run: 12 x 27 feet, \$325; 16 x 32 feet, \$570; 20 x 40 feet, \$850.

The figures given are just for the liners; the other costs include excavation, plumbing, and electrical connections, putting in walls and floor, filter, wall coping, and extras. Total cost for a plastic-lined pool may well run to \$3000, and there can be no assurance that the concrete-block walls will give full satisfaction, for they have a tendency to break apart even when reinforced with steel bars. The plastic liner itself is not a permanent material and will eventually become weak and rip. It should be purchased with a guarantee of durability not to be less than a stated number of years, and be sure to buy from a source of known reliability you can expect to be in business up to that time.

A "prefabricated" plastic pool kit for do-it-yourself installation is offered by the Buster Crabbe Division of Cascade Pools, Trenton 9, N. J. In 16 x 32 foot size, including pump and filter system, it costs \$1095; to this must be added the cost of excavation and plumbing and electrical connections. The pool consists of a plastic liner installed over a backing of prefabricated wood panels specially waterproofed and rotproofed, which are assembled in the excavation to form the walls. Local costs for the excavation vary. Advertisements for this pool list the cost of excavation at

\$65, figured on the basis of $3\frac{1}{2}$ "man hours" in use of a bulldozer or power shovel which may very well be out of line in some localities.

Extra costs that go with a pool

In addition to the cost of constructing the pool itself, there will be some extra immediate costs that the prospective pool owner must include in his over-all calculations. The fencing alone can come to \$1000, depending upon type and local requirements as to height and whether you will install the fencing yourself. The fence must be of proper strength to conform with local regulations, and must have a suitable gate or gates that can be securely locked.

Some local regulations may prohibit any fence around your property higher than four feet. On the other hand, some pool ordinances require a fence six feet or even eight feet high. This matter will have to be worked out on an individual basis by the local authorities. There will be costs for replacing bushes and restoring the lawn, repairing the driveway that may have been damaged, etc. Installing a pool will increase your real estate assessment and your taxes (equivalent to about \$10 a month in Washington, N.J., on a \$3000 pool).

Certain extra equipment, not included in your installation contract, must be considered. You'll need a vacuum cleaner, outside floodlights, an outside shower, benches, etc. For a real luxury job, you may want to put in a pool heater, dressing rooms, toilet, etc.

A familiar cleaner gets a new label

THE Federal Trade Commission has recently charged that the manufacturer of an all-purpose liquid for home cleaning, called *Lestoil*, now being extensively advertised on television, uses wording on the label of the product and in the advertising which could mislead consumers. The Federal Trade Commission charged that the product had a low flash point and, that if used under some conditions as recommended by the manufacturer, as, for example, for the cleaning of stoves, the product could present a fire hazard. The manufacturer denied the F.T.C.'s charges but has taken steps to add a warning to the label of his product advising of its combustible nature, and has eliminated from the label one of the suggested uses that might under some conditions involve a fire hazard. The manufacturer has agreed to do this

even though the U. S. Testing Laboratory, a large commercial laboratory whose work is used for support of many claims in advertising (including those of *Parliament* cigarettes) has stated, according to the maker, that *Lestoil* does not present a fire hazard.

The sales of *Lestoil*, as a result of its appealing radio and television advertising, have been very large, up 500 percent in 1956 over 1955. The hazardous nature of the product seems to inhere in the naphtha, of which it contains a small percentage. It is interesting that, though the product has been on the market for years, its manufacturer appears to have been unaware of the need for warning the public regarding the need for special caution in its use, until the Federal Trade Commission entered its complaint.

Razor blades

(Continued from page 2)

sharpness. The reason for these wide variations lies in the extreme speed of the automatic mass-production process by which blades are produced. It would not be possible from an economic standpoint to control blade quality closely by testing, because of the large sampling that would be required and the unavoidable slowing down of the production process to permit rejection of lots of blades from which samples have shown poor performance. On this account, a considerable variation in quality must be accepted as unavoidable in economic blade production.

Razor blade manufacturers, like many other advertisers, are prone to go a bit off the deep end in their claims. For example, the *Scotch "40 Day"* blades have printed on their box the statement, "Each blade will give you *up to* [italics ours] 40 shaves." While the *Scotch* blades did have good initial sharpness and good durability, the total number of shaves produced by them will of necessity vary greatly, depending on the user's beard and other factors. Of course, the statement is misleading, for only one or two shaves from a blade would fall into the category of "*up to* 40 shaves"; casual reading of the ad would give the idea that all or nearly all blades would give shaves numbering somewhere around 40 or at least not far below it. Most "*up to*" advertising is misleading in effect. What is needed by the consumer is information which gives the "*down to*" figure as well.

The tests made by Consumers' Research determined initial sharpness, uniformity of blades among the lots purchased for test, and durability of the shaving edges. Information on all these characteristics is provided by tests on an instrument specially designed by Consumers' Research (see photograph, page 2). Actual shaving tests have borne out the results of tests by the machine.

Since the quality and uniformity of blades vary from time to time, and depend upon a variety of factors in the factory's operation, including personal care and vigilance of workmen and supervisors, no assurance can be given that blades bought a month or a year from the time of testing which received an *A-Recommended* rating will give satisfactory performance. Should any recommended brand be found not to give good results, it will very likely be due to actual changes in the quality of the product or accidental variations from one lot to another. It is suggested that if a recommended blade does give poor results, consumers should try another of the recommended brands until one is found that is satisfactory.

All of the *A-Recommended* blades had good initial sharpness and had reasonably good durability. The *B-Intermediate* blades had generally good initial sharpness, but blade edges were either below average in durability or were not uniform in all desired qualities. The two *C-Not-Recommended* brands exhibited poor performance in all three factors, initial sharpness, uniformity, and durability.

Prices given in parentheses are per blade, and price ratings are on a *per-edge* basis.

A. Recommended

GILLETTE TYPE

Craftsman Blue Blades (Sears-Roebuck's Cat. No. 9-9304) (2.0c) 1

Craftsman Stainless (Sears-Roebuck's Cat. No. 9-9308) (1.0c) 1

Gillette Blue (Gillette Safety Razor Co., Boston) (4.9c) 1

Personna Precision (Personna Blade Co., Inc., New York 19) (4.9c) 1

Scotch "40 Day" (Urana Corp., Kenilworth, N.J.) (9.8c) 3

OTHER THAN GILLETTE TYPE (SINGLE-EDGE AND SPECIAL BLADES)

Craftsman Chrome Single Edge (Sears-Roebuck's Cat. No. 9-9221) (2.0c) 1

Craftsman Stainless Single Edge (Sears-Roebuck's Cat. No. 9-9306) (4.0c) 1

Pal Hollow Ground Single-edge (American Safety Razor Corp., New York 17) (3.0c) 1

Pal Injector (American Safety Razor Corp.) (3.5c) 1

Schick Injector (Eversharp, Inc., Chicago) (3.7c) 1

Treet Single-edge (American Safety Razor Corp.) (3.0c) 1

Personna Precision Injector (Personna Blade Co., Inc.) (4.5c) 2

Gem Single-edge (American Safety Razor Corp.) (5.9c) 3

B. Intermediate

GILLETTE TYPE

Craftsman Thin (Sears-Roebuck's Cat. No. 9-9316) (2.0c) Uniformity and durability, only average. 1

Durex (Durex Blade Co., Inc., N.Y.C.) (2.0c) Durability, only average. 1

Gillette Thin (Gillette Safety Razor Co.) (3.8c) Uniformity, only average. 1

(Concluded on page 24)

Marlin (Marlin Firearms Co., New Haven, Conn.) (2.5c) Uniformity, only average. 1

Silver Star (American Safety Razor Corp.) (4.9c) Uniformity, below average. 1

OTHER THAN GILLETTE TYPE

Durham Duplex (Durham-Enders Razor Corp., Mystic, Conn.) (9.0c) Uniformity and durability, below average. 3

Enders (Durham-Enders Razor Corp.) (5.0c) Blades were below average in uniformity. 3

C. Not Recommended

GILLETTE TYPE

Pal Gold Thin (American Safety Razor Corp.) (2.5c) 1

Pal Hollow Ground (American Safety Razor Corp.) (3.0c) 1

Outdoor burners for papers and rubbish

(Continued from page 39)

from the rising sparks and burning bits of paper. Since, however, this type of trash burner is the one most used everywhere, Consumers' Research suggests that, in the interest of some degree of protection against fire hazard, consumers who purchase one should place inside the open mesh cylinder a coarse wire screen of about $\frac{1}{2}$ -inch mesh (available from most hardware stores at about 15 cents per square foot). A circular piece made out of the same kind of screen should be fastened on the inside of the wire top of the trash burner with wire. With these changes, the risk of setting a fire to a patch of weeds or brush will at least be greatly diminished, especially if the householder makes it a point to stand by during burning and to avoid burning any trash on windy or gusty days.

Consumers' Research has not tested all the brands of sheet-metal devices sold for burning of trash, but in a test conducted in 1956 found that

typical burners sold by hardware stores or by mail-order houses were pretty unsatisfactory and some were extremely short lived. Common trash burners above the wire basket level range in price from about \$8 up. One fairly good trash burner was the *Blitz-Burner*. A sample purchased in 1955 and in regular use since gave a little over two years' service before it was considered unsafe for burning rubbish. The *Blitz-Burner* has one important advantage over a number of most others available in that the trash, ignited at the top, burns slowly and without discharging many sparks. A further advantage is that the burner can be moved conveniently from place to place, as it is mounted on two wheels and has a suitably placed handle. The *Blitz-Burner* has a capacity of about $2\frac{1}{2}$ bushels. It is available from Lakeshore Mfg. Corp., National Bank Bldg., Ludington, Mich., at \$14.95, f.o.b. factory.

Six tips in maintaining an established lawn

- Fertilize at least once a year.
- Leave clippings on the lawn.
- Rake and remove leaves in the fall.
- Mow frequently.

- Set mower to cut grass at least $1\frac{1}{2}$ inches high.
- Control weeds with 2,4-D.

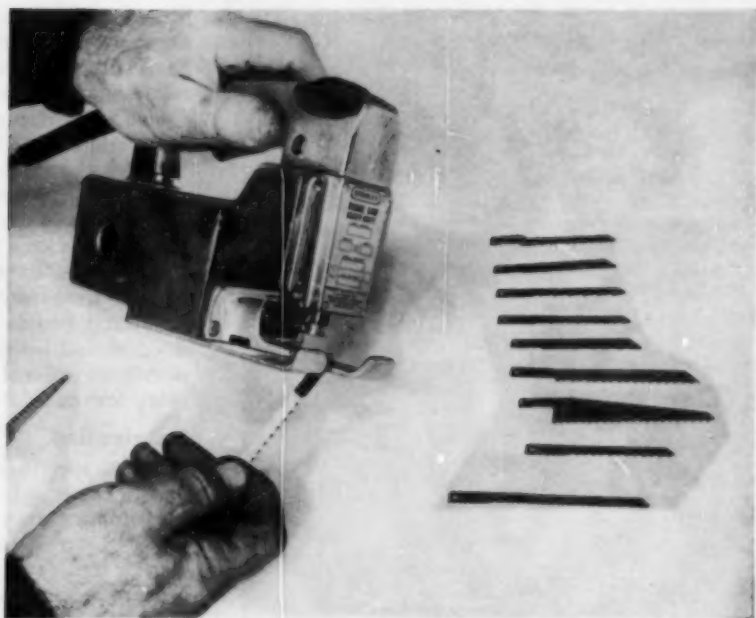
— from an 8-page pamphlet on Home Lawns, Circular 445, Extension Service, College of Agriculture, University of Wisconsin, Madison.

A note to our readers

THE subscription rate for CONSUMER BULLETIN, 12 monthly issues, will be \$5, effective with this June 1958 issue. We very much regret the necessity of this increase, but it is a "must" with the ever-increasing costs of paper, printing, profes-

sional, clerical, and mechanical services, books and journals of reference, office and laboratory supplies and equipment, and almost every other item which determines our costs in providing services to you, the Consumer.

Electric saber saws



The Stanley saw with assortment of blades.

THESE VERSATILE POWER TOOLS which well meet the needs of many amateur home craftsmen for woodcutting are also known as portable jig saws, bayonet saws, or electric handsaws. Their popularity is due to certain special advantages they possess, foremost among which is that they are relatively safe to operate, and even the most inexperienced operator would not be likely to injure himself seriously in operating one of these saws. Other power woodcutting tools, such as circular saws, on the other hand, are inherently dangerous and can cause grave injury even when used by skilled operators. Saber saws will cut curved as well as straight lines and can be used to cut openings in walls, floors, or in large panels. Inside "blind" cuts do not require drilling of a starting hole.

Band saws and jig saws are limited in the size of the wood they can cut by the depth of their throat (the distance between the blade and the upright column). No such limitation exists with the portable saber saws; they can cut clear across a full-sized panel or any size piece of lumber that is not thicker than about $1\frac{1}{2}$ to 2 inches. The best saws have sufficient power to cut across a piece of 1 x 12 shelving in about 10 seconds or through a 2 x 4 in 10 to 15 seconds, which is about as fast as sawing can be done by a sharp handsaw, but the power saw, of course, makes the work much easier.

The saber saw is not a complete substitute for

the bench or cabinet circular saw because it cannot produce as accurate cuts nor can it cut dado grooves or miters required in precision jointing. While fairly straight cuts can be made with the aid of protractor guides or a board clamped on and used as a straightedge or guide, the saber saw cannot be relied upon to cut accurately square clean edges of board or plywood panels.

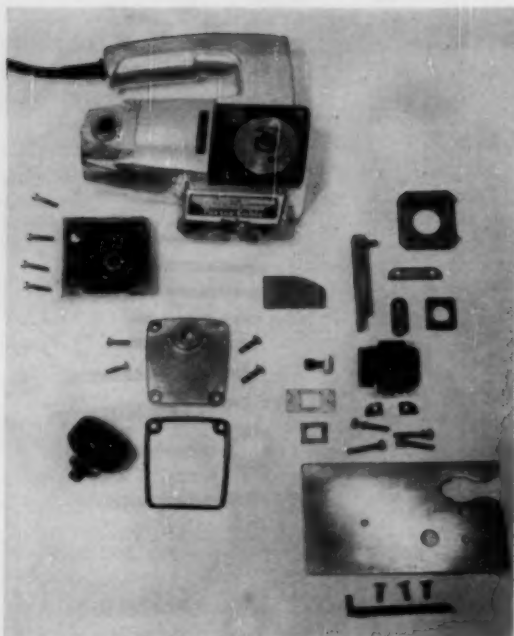
Orbital action

Some of the saws tested had an orbital action; with orbital action, the saw blade backs away from the cut surface a little on the non-cutting stroke. This is supposed to help clear away the wood chips, permit cooling of the blade, and reduce friction. In the comparative use tests, there appeared to be no significant advantage of the orbital action, which may be more a talking point than a real, important advantage.

Replacement blades

The cost and availability of blades should be taken into consideration in purchasing a saw. Most saws are designed to accept only blades of the same make as the saw and as prices per blade range from about 30 cents to \$1.50, the cost of replacing blades can be an important item. Prices for the same type of blade may vary as much as 100 percent between different brands.

Most manufacturers of saber saws offer a wide variety of blades; some for cutting wood have



The Porter-Cable saw partly disassembled for greasing.

fine teeth for smooth cutting and others have coarse teeth for fast cutting; there are blades for cutting metal, plastics, rubber, leather, insulating materials, and floor tiles.

Correct use of the saber saw

In cutting wood, the front end of the saw shoe should be placed on the edge of the wood and the blade brought close to the start of the cutting line before the saw is switched on. Avoid forcing the saw; if it is pushed too hard, the blade may break. If the blade breaks, the broken end remains embedded in the saw cut and can be removed with pliers. It is very important that the saw shoe or base rests firmly on the surface of the work that is being cut. When small pieces of wood are to be cut, they should be fastened in a vise or clamped firmly to a bench or table. On sharp radius bends narrow blades must be used, and it may be necessary to back up and widen the cut on the waste part of the stock so that the blade can make the turn. Metal cutting is done with hardened hacksaw-type blades having 24 teeth per inch, which will cut, though very slowly, a steel bar 1 inch thick, and in some cases even heavier stock. Non-ferrous metals like copper, brass, and aluminum are cut at fair speed with blades having 14 teeth per inch. These blades are also used for *Formica* sheets and other sheet plastics and may be used for cutting openings in

plaster walls. Cutting metal (other than thin sheets or light stock) is slower than sawing by hand with a hacksaw, and the blades have a relatively short life in cutting metal (because, with the short stroke, the cutting is done by only a few teeth).

All of the saws tested except *Weller* had universal (ac-dc) motors, which should not be operated continuously, because under steady load they will become overheated. This is no great disadvantage for most users, as saber saws are usually used intermittently, with rest periods between. Production cutting of many pieces of wood should be avoided unless the motor can be permitted to cool from time to time, or after every few cuts.

Lubrication

The high speed and fairly complicated mechanism of the better saber saws indicate need for thorough lubrication to protect the saw bearings and gears. On this subject, there is a marked variation in the instructions issued by manufacturers. Several recommend almost complete disassembly of the mechanism to wash out old grease; then the user is to apply special lubricant where needed—at needle bearings, shafts, and bushings. Other brands have a hole closed with a screw plug through which grease or oil may be squirted. Some saws even have unprotected open oil holes; this design is obviously unsound for it permits entry of grit and sawdust which will damage or clog the mechanism. Some instruction booklets warn against using any but a specially prepared lubricant; others merely recommend use of any "light" oil.

All saws are lubricated at the factory, and need no additional lubrication until after 50 or 100 hours of actual use. Since in the average home the saw is used infrequently and for only a few minutes at a time, a considerable period may elapse before 50 hours of actual running time is accumulated. However, the user should not allow a tool representing an investment of \$30 to \$100 to deteriorate for lack of lubrication, or because of improper lubrication.

One instruction booklet (*Disston*) shows 18 photographs of the steps required for lubricating the parts. Another booklet (*Porter-Cable*) takes up four pages to describe the process, which involves careful handling of many small parts. These must be thoroughly cleaned and the housing flushed with cleaning fluid and kerosene. Then a thin coating of lubricant is applied to specific parts. The saw owner is warned against using an excessive amount of lubricant, because pressure built up inside the casing may break the gasket seals.

The grease-hole method of lubricating seems a lot

easier, but it is doubtful if the oil or grease thus applied will assuredly reach well into the shafts and bearings; sawdust and grit will accumulate, causing expensive wear. One instruction booklet (Wen) says lubrication is not required, but when "replacing worn gears and bearings, pack the housing with grease."

One saw (the *Lesto*) cannot be disassembled for lubrication because of the complicated planetary gear mechanism. The saw has an oil hole for lubrication, but experience has shown that saw bearings so lubricated are subject to wear, possibly because lubrication by this method can hardly be adequate and fully dependable.

For the homeowner who hesitates to dismantle his saw, the best procedure would be to send the saw to the manufacturer's service station periodically for lubrication. This would occur possibly once in a year or two, and the cost usually is only \$1 to \$1.50, including inspection of the armature. Porter-Cable and Skil charge \$1; Black & Decker, \$1.50. *Lesto* charges \$4 for complete disassembly, inspection, and lubrication.

* * *

We are pleased to report that all of the saws satisfactorily passed the tests for electrical safety. Advertisements for all saws except *Black & Decker* and *Weller* claimed they would cut 2-inch lumber. In the use tests, this was found to be true except for the *Forsberg G-Whiz* (see listing). The *Lesto GEB 4*, although the catalog lists capacity at only 1¼-inch lumber, easily cut 2-inch lumber, a rare case of understatement in advertising. Some saws had no handles; they were held by the motor barrel or casing; others had one or two handles. In use, it was found that handles were not necessary on good saws, but that, on the other hand, handles were necessary on saws that had excessive vibration, as such saws required the use of both hands to hold them securely. One reason given for the use of handles on some makes is to avoid users having to grasp a hot saw motor casing. In practice, however, the motor should not be permitted to overheat (it should be shut off and allowed to cool if it becomes too hot to handle, as may occur if the saw is used continuously for long periods). The handle does not give sure protection against shock hazard even if the handle is made of insulating-type material, because the metal housing of the saw may be touched during use of the appliance. Switches should be in plain view and clearly marked On-Off to prevent the saw being started accidentally as, for example, being plugged in with the switch in the "On" position. Several of the saws were deficient in this respect. Strokes per minute given in the listings are under no-load conditions. Prices given are list; how-

ever, one could reasonably expect to purchase most of the saws listed at discounts up to 25 to 30 percent.

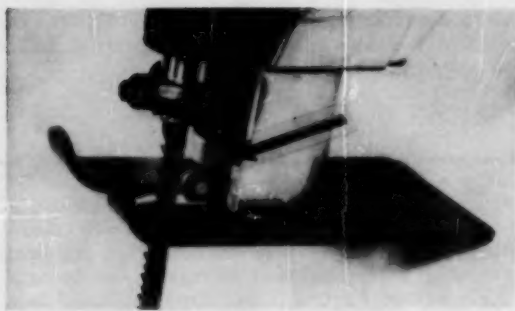
A. Recommended

Craftsman, Model 315-27940 (Sears-Roebuck's Cat. No. 9-2794) \$29.44, plus postage. Blades, 2 for 55c. Ac-dc motor rated at 2 amperes. Length of stroke, ½ in. Strokes per minute, 3400. Slide-type switch, clearly marked "ON-OFF." Three-wire cord, 10 ft. long, with grounding plug. Ball and oil-impregnated bearings. Blade secured by two Allen set screws. Top handle integral with housing. Instructions call for lubrication of rear motor bearing every 6 months, and gear-case lubricant should be added after 25 hr. of operation through a hole covered by a cap at the top of the housing. Somewhat noisy in operation. Cutting speed, faster than average. Effectiveness of blower in removing sawdust from line of cut, very good. UL and C.S.A. (Canadian Standards Association) labels. Weight, 4 lb. 8 oz. 1

Lesto, Model GEB 4 (Scintilla Ltd., Switzerland; distributed by Victor J. Krieg, 611 Broadway, New York 12) \$62.50 with three blades, screw driver, and tube of grease. Blades, 75c each. Ac-dc motor rated at 150 watts under load. Length of stroke, ¾ in. Strokes per minute, 3370. Toggle switch under motor housing. Three-wire cord (one wire for grounding). Uses a



Greasing the Forsberg Whiz-Saw Model 1 through the top lubrication hole.



The blade support or back-stop used on the Skil saw is a desirable feature.

planetary gear system, rather than the simple reciprocating action used on American saber saws. The user holds the saw by gripping the motor housing. Lubrication is through a covered oil hole at the top of the saw. Blades were somewhat hard to install, because of hidden screw lock, which was reached through the top grease hole with a Phillips screw driver. Although the manufacturer rates the maximum thickness of wood to be cut as $1\frac{1}{4}$ in., this saw easily cut 2 x 4's (actual size, $1\frac{1}{4}$ x $2\frac{1}{2}$ in.). Effectiveness of blower, very good. Repairs are likely to be expensive. Charge for complete inspection and lubrication, \$4. Weight, 4 lb. 4 oz. **2**

Porter-Cable, Model 152 (Porter-Cable Machine Co., Syracuse, N. Y.) \$54.95 with three blades, base insert, and tube of grease; \$59.95 with kit which includes angle adjusting base, rip guide, and wall bracket. Blades, 40 to 70c each. Ac-dc motor rated at 2.5 amp. Length of stroke, $5/16$ in. Strokes per minute, 4600. Toggle switch marked "On-Off," but markings too small to be of value. Three-wire cord, 6 ft. 9 in. long, with grounding plug. Self-lubricating bronze bearings. Top handle integral with housing; there is also a large plastic knob on left-hand side. Blade had "orbital" motion. Lubrication requires extensive disassembly, but factory service stations will service and lubricate for \$1. Cutting speed, faster than average. Handled well with very little vibration. Effectiveness of blower, good. Weight, 6 lb. **2**

Skil, Model 511 (Skil Corp., Chicago 30) \$47.50 with one blade. Blades, 50c to \$1.10 each. Ac-dc motor rated at 2 amp. Length of stroke, $1/2$ in. Strokes per minute, 3450. Sliding switch marked "On-Off," but marking too small to be of value. Three-wire cord, 7 ft. 3 in. long, with grounding plug. Cutting blade was backed by a hardened-steel roller (desirable). Ball thrust bearings and sleeve bearings. Blade secured in position by 2 Allen setscrews. No handle, but motor housing was small enough in diameter to provide a comfortable hand-grip. Cutting speed, about average. Handled well for all types of cuts. Effectiveness of blower, good. Lubrication requires disassembly. Construction, very good. UL and C.S.A. labels. Model 514 at the same price is similar except that it has orbital blade motion (see text). Weight, 4 lb. 7 oz. **2**

Stanley, Model H-75 (Stanley Electric Tools, Division of The Stanley Works, New Britain, Conn.) \$54.50

with three blades. Blades, 40c to \$1.50 each. Ac-dc motor rated at 2.5 amp. Length of stroke, $5/8$ in. Strokes per minute, 3300. Sliding switch clearly marked "On-Off." Three-wire cord, 8 ft. long, with grounding plug. Self-lubricating bronze bearings and roller bearings. Blade secured in position by one setscrew with slotted head for screw driver. Handle on top integral with housing. Lubrication requires disassembly. Cutting speed, about average. Handled well with a minimum of vibration. Effectiveness of blower, good. Relatively large base plate is adjustable in position to permit flush cutting (with a special blade) up to a vertical surface. C.S.A. label. A good quality saw of ample power. Weight, 5 lb. 9 oz. **2**

Disston D-23 (H. K. Porter Co., Inc., Philadelphia 35) \$98.50 with four blades. Blades, 40c to \$1.25 each. Ac-dc motor rated at 3 amp. Length of stroke, $3/4$ in. Maximum cutting capacity, $2\frac{1}{4}$ in. Strokes per minute, 3450. Pistol-type trigger switch which shuts off motor when released but could be locked in On position when desired. Three-wire cord, 10 ft. long, with grounding plug. Cord can be detached (desirable). Needle and ball bearings. Blades secured in position by an Allen setscrew. Saw has handle made of plastic (similar to the handle of a handsaw). This Disston differs from other saws in that the motor is at right angles to direction of cut. There does not appear to be any important advantage in this type of design. Base plate swivels for cutting bevels. Lubrication required disassembly. Cut speedily and with little effort. Effectiveness of blower, very good. A good sturdy saw best suited for use by professional carpenters or those who do considerable wood-working. Weight, 5 lb. 5 oz. **3**

H. Intermediate

Shopmate, Model 2100 (Portable Electric Tools, Inc., Chicago 20) \$29.95 with three blades, rip and circle cutting guide. Blades, 40c to 65c each. Ac-dc motor rated at 1.8 amp. Length of stroke, $5/8$ in. Strokes per minute, 3150. Toggle switch. "On" and "Off" positions not marked. Light bulb in front illuminates work (a good feature). Two-wire cord, 5 ft. 8 in. long, with no provision for grounding (undesirable). Base plate swivels for bevel cutting. User holds saw by gripping motor housing; a detachable knob is also provided, for use on right- or left-hand side. Oilite bearings. Blade secured by two small Allen setscrews. Open oil holes provided for lubrication of motor bearings (undesirable). Instructions recommended replacing gear case grease when replacing worn bushings and bearings. Cutting speed, much slower than average. Effectiveness of blower, satisfactory. Visibility of cutting line, poor. Weight, 3 lb. 15 oz. **1**

Black & Decker, Model U-10 (The Black & Decker Mfg. Co., Towson 4, Md.) \$54.50 with five blades. Blades, 40c to \$1.50 each. Ac-dc motor rated at 2 amp. Length of stroke, $1/2$ in. Strokes per minute, 3650. Toggle-type switch clearly marked "On-Off." Three-wire cord, 9 ft. 3 in. long, with grounding plug. Bronze sleeve bearings on motor shaft, steel sleeve bearings in head, blade secured in position by two Allen setscrews. Saw is held by gripping motor housing with one hand; a

small knob is provided at top front of the saw to permit guiding the saw with the other hand if desired. To lubricate, gear case cover casting is removed and gears repacked with special lubricant. C.S.A. label. Listed by UL. Cutting speed, about average. Effectiveness of blower, good. There was tendency in one sample for motor to overheat. Weight, 4 lb. 2 oz. **2**

Dyno-Mite, No. 480 (Millers Falls Co., Greenfield, Mass.) \$49.50 with four blades. Blades, 45c to 95c each. Ac-dc motor rated at 2.5 amp. Length of stroke, $\frac{1}{2}$ in. Strokes per minute, 3000. Toggle-type switch located under housing, clearly marked "On-Off," but location considered undesirable. Three-wire cord, 7 ft. long, with grounding plug. Bronze bearings on motor, steel bearing for gear. Saw is held by gripping motor housing; a knob is provided at the top front of the saw to permit guiding the saw with the other hand. An Allen wrench for clamping blades in position (2 setscrews) was attached to this knob (an excellent idea to prevent the wrench from being lost). Lubrication requires disassembly. Cutting speed, somewhat faster than average. Somewhat noisy in operation, and there was marked vibration. Effectiveness of blower, good. UL and C.S.A. labels. Weight, 3 lb. 12 oz. **2**

Forsberg Whiz-Saw, Model 10 (Forsberg Mfg. Co., Bridgeport, Conn.) \$34.95 with three blades. Blades, 60c to \$1.25 each. Ac-dc motor rated at 3 amp. Length of stroke, $\frac{1}{2}$ in. Strokes per minute, 4200. Toggle switch not marked "On-Off." Two-wire cord, 6 ft. 10 in. long, with no provision for grounding (built-in means for grounding are important). Bronze bearings on motor shaft, steel bearings for gears. Blade secured in position by removing knurled screw cap and inserting a screw driver, which was provided, to turn screw inside housing. User holds saw by gripping the motor housing. To lubricate the saw, special grease is introduced to gear case through opening in top of head, which is covered by a screw plug. Cutting speed, about average. Effectiveness of blower, good. Weight, 3 lb. 12 oz. **2**

Forsberg Whiz-Saw, Model 1 (Forsberg Mfg. Co.) \$55 with three blades. Blades, 60c to \$1.25 each. Ac-dc motor rated at 3 amp. Length of stroke, $\frac{3}{4}$ in. Strokes per minute, 3250. Push-button switch with locking device. Three-wire cord, 7 ft. long (one wire for grounding). Blade secured in position by same method as on Model 10. User holds saw by gripping motor housing. Ball bearings on motor, oilless bearings in head. Lubrication, same as for Model 10. Cutting speed, about average. Effectiveness of blower, good. Weight, 3 $\frac{1}{2}$ lb. **2**

C. Not Recommended

Dalton, Model D-600 (Dalton Mfg. Co., St. Louis 5) \$29.95 with three blades. Blades, 30 to 40c each. Ac-dc motor rated at 2 amp. Length of stroke, $\frac{1}{2}$ in. Strokes per minute, 3350. Sliding-type switch clearly marked "On-Off." Three-wire cord, 5 ft. 8 in. long, with grounding plug. Oilite bearings. Blade secured in position by two Allen setscrews. Had top handle integral with housing. Gears were claimed to be sealed in a permanent grease, but there was some leakage at the blade shaft.

Saw was somewhat noisy and had above-average vibration. Cutting speed, slower than average. Effectiveness of blower, good. Weight, 3 lb. 13 oz. **1**

Forsberg G-whiz (Forsberg Mfg. Co.) \$24.95 with three blades. Ac-dc motor, rated at 1.5 amp. Strokes per minute, 2650. Toggle switch. Two-wire cord, 7 ft. long, with no provision for grounding (undesirable). Although advertised to cut 2-in. finished lumber, this saw was barely able to cut a 2 x 4 and then only very slowly. Effectiveness of blower, poor. Judged to be suitable only for light occasional work, such as modelmaking or scroll sawing. Weight, 2 lb. 8 oz. **1**

Weller, Model 800 (Weller Electric Corp., Easton, Pa.) \$19.95 with three blades. Blades, 35c each. Vibrator-type motor for a.c. only; rated at 3 amp. Claimed maximum cutting capacity, 1 in. (most of these tools will cut up to 1 $\frac{3}{4}$ in. thickness). Toggle switch clearly marked "On-Off." Two-wire cord, 8 ft. long, with no provision for grounding. Top handle integral with housing; also plastic knob at top front of saw. Requires no lubrication. This saw was very noisy in operation, and excessive vibration made it difficult to guide the saw along the desired cut. Cutting speed was very slow on 1-in. stock. No blower was provided. Blades were too springy. Weight, 4 lb. 12 oz. **1**

Wen, Model 505 (Wen Products, Inc., Chicago 31; Montgomery Ward's Cat. No. 84-8920) \$24.95, plus postage. Blades, 40c to 60c each. Ac-dc motor rated at 1.8 amp. Length of stroke, $\frac{1}{2}$ in. Strokes per minute, 3000. Toggle switch, with poorly marked "On" position only. Two-wire cord, 5 ft. 9 in. long, with no provision for grounding (undesirable). Oilite bearings. Blade secured in position by two setscrews. User holds saw by gripping motor housing. Open oil holes provided for lubrication of motor bearings (undesirable). Instructions recommend replacing gear case grease when replacing worn bushings and bearings. Cutting speed, much slower than average. Effectiveness of blower, satisfactory. Weight, 4 lb. 4 oz. **1**

Pet, Model 2001 (Portable Electric Tools, Inc.) \$44.95 with four blades. Blades, 40c to 65c each. Ac-dc motor rated at 1.4 amp. Length of stroke, $\frac{3}{4}$ in. Strokes per minute, 3100. Toggle switch clearly marked "On-Off." Three-wire cord, 5 ft. 7 in. long, with grounding plug. Top pistol-grip-type handle. Bronze Oilite bearings throughout. Disassembly required for lubrication. Gear case claimed to be permanently lubricated. Cutting speed, very slow. Saw was top-heavy and clumsy to handle. Excessively noisy and had considerable vibration. Sawdust was not effectively removed from line of cut although saw had a small piston-type air pump built in. Numerous metal chips were found in gear case, indicating poor inspection or assembly. UL label. Weight, 5 $\frac{1}{4}$ lb. **2**

Saber saw attachments

These attachments, designed for use with a $\frac{1}{4}$ -inch electric drill, are usually clumsy and lack the balance of a good saber saw. There is also the possibility of overheating and burning out the

drill motor, because that motor may not have enough power for the job.

B. Intermediate

Millers Falls Attachment, No. 886 (Millers Falls Co.)

\$13.50. For use with No. 888 Power Unit, rated at 1/3 hp. Cutting speed, much faster than average, due to powerful motor of power unit. Clumsy to handle because of weight of the heavy motor at the back and the high vertical handle. This saw had a very small base shoe, which provided inadequate support.

Emendations to Consumer Bulletin

Men's wrist watches

Page 9, Col. 1, March '58 Bulletin

The statement "any claim that more than 17 [jewels] make a better watch and worth a higher price is likely to be just sales talk" applies particularly to the usual wrist watches that are wound by hand—not to self-winding watches, which can advantageously utilize additional jewels. For example, one *Bulova* self-winding watch contains 23 jewels, of which six are placed at points in the self-winding mechanism.

Contact copying machines

Pages 22-26, March '58 Bulletin

Two manufacturers of *silver-transfer* photocopying machines have advised CR that their developing solutions do not require daily removal from the machines and overnight storage in stoppered containers, as stated near the top of the second column on page 24. Some solutions are said to be capable of developing acceptable copies after being left in machines as long as two weeks. However, the solutions will remain usable much longer if stored in airtight containers when not in

use, and this practice is recommended for those who make copies only occasionally. The solution used in *dye-transfer* machines should be changed weekly or after processing 100 matrices, whichever occurs sooner, according to instructions by Eastman Kodak Company, but some users have reported satisfactory operation for as many as 150 matrices or up to four weeks, if losses from "drag-out" and evaporation are replaced by additional solution as needed. This solution, too, is better removed and stored between periods of use by those who make copies only occasionally.

Verifax copiers (second column, page 25, under Dye-transfer process) are manufactured by Eastman Kodak Company's Apparatus and Optical Division, Rochester 4, N. Y. (Recordak Corporation is one of a number of distributors.)

In the listing of the *Dick* photocopier (first column, page 26), delete the words: "Only machine known to Consumers' Research that." There are other machines that combine a flat-bed printer and a roll-feed developer, including the *Copease*, *Nord*, and *Photorapid* machines listed in the same column that are designated CPD, FB.

Off the editor's chest

(Continued from page 38)

The availability of stereophonic disks will undoubtedly affect the sales of stereophonic tape, for although tape is considered to be the medium that gives the best fidelity over the longest period, it is a lot more trouble to handle and care for. It is something of a nuisance to rewind a reel, and storing tapes is more of a problem than filing phonograph records, for which more people have acquired suitable facilities. As one critic who was enthusiastic about the quality of sound from stereo tape admitted, you need to be a bit of an engineer to handle tape; it is far more expensive per hour of play than an LP record; and there is no tape "record changer."

Stereophonic sound for mass production will undoubtedly be most successfully marketed as disks, and no doubt there will be stereo record players

in the shops at Christmas complete and ready to be plugged in, at \$300-\$1000 and up. Components will also be available, but for most people they will need to be fitted onto present equipment by a skilled hobbyist or well-trained audio serviceman. You will be wise to let the do-it-yourself hobbyists with some engineering training and experience do their experimenting for a year or two at least before you make any sizable investment in one of the new systems, which will be considerably revised and modified before they really get into quality mass production.

In any event, high-fidelity fans with some do-it-yourself skills have an extensive and interesting number of developments to explore in the immediate future. Good listening!

Index of major articles in Consumer Bulletin

January 1958 (Vol. 41, No. 1)

through

June 1958 (Vol. 41, No. 6)

Single copies of Consumer Bulletin are available, at 40 cents.

A complete index for the volume year, January through December 1958, will appear in the December 1958 Consumer Bulletin.

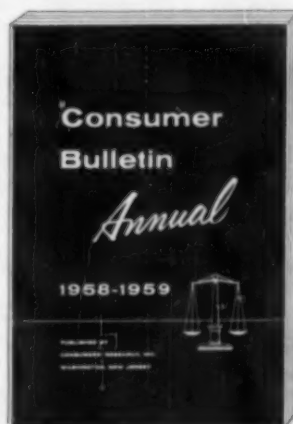
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Automatic dishwashing machines	Feb.	13	Men's white shirts	Mar.	29
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Rambler Custom 6	Feb.	8	in cigarettes	Feb.	2
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The quality of automobile tires	May	30	The only safe and effective way to reduce excess poundage	Jan.	2
Which gasoline?	May	23	Vitamins and vitamin preparations		
Cleaning and Laundering			Hi-Fi and Music		
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Household liquid cleaner	June	22	Electronic organs	Feb.	20
Portable water-purifiers	Apr.	27			
Scouring powders	June	12			

(Continued on page 32)

Coming —

CR's big 224-page Annual Bulletin is scheduled for mailing early in September. It represents an extensive summary of previous tests and reports by Consumers' Research on many of the products consumers use every day. Conveniently grouped into sections, it rates over two thousand products by brand name, and is fully indexed for looking up particular items.

Take the opportunity to order this consumer's handbook of buying at the special subscribers' rate on next page!



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Phonograph records	each issue	
Pocket-size wire recorder	May	31
Radio actuated by light	Jan.	39
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Stereo disks—high fidelity or novelty?	June	38
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Tape recorders	Apr.	10

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Observing satellites	May	2
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Features in Each Issue

Off the editor's chest
Phonograph records
Ratings of motion pictures
The consumers' observation post

Recent reprints from Consumer Bulletin

		Price (stamps acceptable)
Fat in the diet	July '57	10c
Heart disease	Dec. '57	10c
The food you eat	Sept. '57	10c
Notes on foods and nutrition	'57-'58 Annual	20c
Those labels on packaged foods	Feb. '58	10c
Contact copying machines	Mar. '58	15c

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Ratings of Motion Pictures

THIS SECTION aims to give critical consumers a digest of opinion from a wide range of motion picture reviews, including the motion picture trade press, leading newspapers and magazines—some 19 different periodicals in all. The motion picture ratings which follow thus do not represent the judgment of a single person, but are based on an analysis of critics' reviews.

The sources of the reviews are:

Boxoffice, Cae, Daily News (N. Y.), The Exhibitor, Films in Review, Harrison's Reports, Joint Estimates of Current Motion Pictures, Motion Picture Herald, National Legion of Decency, Newsweek, New York Herald Tribune, New York Times, The New Yorker, Parents' Magazine, Release of the D. A. R. Preview Committee, Reviews and Ratings by the Protestant Motion Picture Council, The Tablet, Time, Variety (weekly).

The figures preceding the title of the picture indicate the number of critics whose judgments of its entertainment values warrant a rating of A (recommended), B (intermediate), or C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure
biog—biography
c—in color (Anasco, Eastman, Technicolor, Trucolor, Warner Color, etc.)
car—cartoon
com—comedy
cri—crime and capture of criminals
doc—documentary
dr—drama
fan—fantasy
hist—founded on historical incident
mel—melodrama
mus—musical
mys—mystery
nov—dramatization of a novel
rom—romance
sci—science fiction
soc—social-problem drama
trav—travelogue
war—dealing with the lives of people in wartime
wes—western

A	B	C		
—	—	5	Abductors, The.....	dr AYC
—	6	3	Abominable Snowman, The (British).....	sci-mel AYC
—	9	7	Across the Bridge (British).....	dr A
—	4	3	Adultress, The (French).....	dr A
—	2	6	Affair in Havana.....	cri-mel A
—	9	7	All at Sea (British).....	com AYC
1	7	1	All Mine to Give.....	dr-c AYC
—	1	4	Ambush at Cimarron Pass.....	wes AYC
—	3	6	And God Created Woman (French).....	dr-c A
2	10	3	April Love.....	mus-dr-c AYC
—	1	3	Assault (Finnish).....	soc-dr A
—	4	1	Awakening, The (Italian).....	dr AY
—	4	11	Baby Face Nelson.....	cri-dr A
—	3	3	Beast of Budapest.....	mel AYC
—	2	11	Beautiful but Dangerous (Italian).....	mus-dr-c A
—	1	5	Bed of Grass (Greek).....	dr A
—	3	1	Beggar Student, The (German).....	mus-com-c AY
—	8	1	Big Beat, The.....	mus-com AY
—	5	5	Bitter Victory (British).....	war-mel AY
—	3	5	Blood of Dracula.....	cri-mel AY
—	10	5	Bombers B-52.....	war-dr-c AY
—	7	8	Bonjour Tristesse.....	dr-c A
—	3	—	Brain from Planet Arous, The.....	sci AY
—	1	6	Bride and the Beast, The.....	mel A
—	4	5	Bride is Much Too Beautiful, The (French).....	com A
12	4	1	Bridge on the River Kwai, The.....	war-dr-c AYC
10	5	2	Brothers Karamazov, The.....	dr-c A
—	4	2	Cabaret (German).....	mus-dr A
—	8	5	Cabiria (Italian).....	dr A
—	5	—	Campbell's Kingdom (British).....	mel-c AYC
—	1	2	Carnival Rock.....	mus-mel AY
—	1	3	Cartouche.....	adv A
—	8	1	Cast a Dark Shadow (British).....	cri-mel-c A
—	4	5	Cattle Empire.....	wes-c AY
—	10	2	Chase a Crooked Shadow.....	mys-mel AY
1	6	3	Colditz Story, The (British).....	mel AYC
—	5	—	Cole Younger, Gunfighter.....	wes-c AYC
—	2	4	Confessions of Felix Krull, The (German).....	nov A

A	B	C		
—	1	2	Cop Hater.....	cri-mel A
—	7	1	Count Five and Die (British).....	war-mel AY
5	8	4	Cowboy.....	biog-c AY
—	7	3	Crash Landing.....	dr AYC
—	2	2	Crooked Circle, The.....	mel AYC
—	5	3	Cross-Up (British).....	mys-mel AY
—	2	1	Curse of the Demon.....	mel AY
—	4	7	Dalton Girls, The.....	wes A
—	7	4	Damn Citizen!.....	mel A
1	9	7	Darby's Rangers.....	war-mel A
—	6	5	Day of the Bad Man.....	wes-c AY
—	5	2	Deadlier Than the Male (French).....	dr A
—	5	4	Declaion at Sundown.....	wes-c A
—	6	7	Deep Six, The.....	war-dr-c AYC
—	5	1	Demoniaque (French).....	mys-mel AY
2	6	9	Desire Under the Elms.....	dr A
—	3	6	Diamond Safari.....	mel A
1	13	4	Don't Go Near the Water.....	war-com-c A
—	3	8	18 and Anxious.....	dr A
5	12	1	Enemy Below, The.....	war-mel-c AYC
—	3	7	Escape from Red Rock.....	wes AYC
—	1	8	Escape from San Quentin.....	mys-mel A
—	1	3	Every Second Counts (French).....	dr A
5	4	8	Farewell to Arms, A.....	war-dr-c A
—	3	1	Fedra, the Devil's Daughter (Spanish).....	dr A
—	3	9	Female Animal, The.....	dr A
—	1	3	Fighting Wildcats, The (British).....	mel A
—	1	2	Flame Barrier, The.....	sci-mel AY
—	6	—	Flesh is Weak, The (British).....	soc-dr A
—	9	1	Flood Tide.....	dr AY
—	5	4	Fort Bowie.....	wes AY
—	7	3	Fort Dobbs.....	wes AY
—	8	2	Gates of Paris (French).....	dr A
1	10	3	Gervaise (French).....	dr A
—	5	4	Ghost Diver.....	mys-mel AYC
—	6	9	Gift of Love, The.....	dr AYC
—	3	2	Girl in the Woods.....	cri-mel A
—	8	2	Girl Most Likely, The.....	mus-com-c AYC
—	6	—	Girls on the Loose.....	cri-mel A
—	5	4	Going Steady.....	com A
—	8	—	Golden Age of Comedy.....	doc AYC
—	1	9	Green Eyed Blonde, The.....	soc-dr A
—	2	5	Gun Battle at Monterey.....	wes A

A	B	C		
—	1	7	Gun Fever	wes A
—	—	5	Gunfire at Indian Gap	wes AY
—	1	2	Guns Don't Argue	cri-mel A
—	3	2	Handle with Care	dr AYC
—	4	4	Hard Man, The	wes-c A
—	3	8	Hear Me Good	com A
—	6	—	Hell Canyon Outlaws	wes AYC
—	1	3	Hell Ship Mutiny	mel AYC
—	4	—	Hell's Five Hours	mys-mel AY
1	7	2	High Cost of Loving, The	com A
—	2	5	High Flight (British)	war-mel AYC
—	3	6	High Hell	mel A
1	8	6	How to Murder a Rich Uncle (British)	com AYC
1	5	11	Hunchback of Notre Dame, The	dr-c A
3	9	3	I Accuse (British)	dr AY
—	2	7	I Was a Teenage Frankenstein	mel AY
—	9	2	Invisible Boy, The	sci AYC
—	5	3	It's Great to be Young (British)	mus-mel-c AYC
—	7	10	Jailhouse Rock	mus-mel A
—	1	8	Jamboree	mus-com AYC
—	2	3	Jet Attack	war-mel A
—	1	4	Juvenile Jungle	cri-mel A
—	12	7	Kiss Them for Me	com-c A
—	8	5	Lady Takes a Flyer, The	com-c A
—	6	5	Lafayette Escadrille	mel A
—	4	3	Last Paradise, The (Italian)	doc-c A
—	3	—	Last Stagecoach West	wes AYC
—	1	2	Lawless Eighties, The	wes AYC
1	5	8	Legend of the Lost	adv-c AY
—	4	7	Long Haul, The (British)	mys-mel A
3	7	5	Long Hot Summer, The	mel-c A
—	3	—	Looking for Danger	com AYC
—	1	6	Lost Lagoon (British)	mel A
—	9	—	Love Slaves of the Amazons	adv-c A
—	4	6	Lovemaker, The (Spanish)	dr A
—	2	3	Macabre	cri-mel A
—	3	4	Man from God's Country, The	wes-c AYC
—	6	9	Man in the Shadow	mel A
—	6	4	Man on the Prowl	cri-dr A
—	2	3	Manhunt in the Jungle	doc-c AY
4	3	1	Marjorie Morningstar	nov-c A
2	5	6	Mark of the Hawk, The	soc-mel-c AY
2	11	3	Merry Andrew	mus-com-c AYC
—	6	4	Missouri Traveler, The	com-c AY
—	2	12	Mister Rock and Roll	mus-com A
—	8	1	Monolith Monsters, The	sci-mel AYC
—	2	2	Motorcycle Gang	mel A
—	1	3	Mustang	wes AY
—	2	1	Naked Africa	trav-c A
—	1	4	Naked in the Sun	mel-c A
—	—	3	Notorious Mr. Monks, The	mel A
5	12	—	Old Yeller	dr-c AYC
—	4	2	One that Got Away, The (British)	war-dr AYC
—	3	2	Ordet (Danish)	dr A
—	4	4	Oregon Passage	wes-c AY
—	—	3	Outcasts of the City	war-mel A
—	8	—	Panama Sal	com A
—	4	5	Panic in the Parlor (British)	com AY
1	4	2	Paris Holiday	com-c AY
1	5	8	Paths of Glory	war-dr AY
—	2	4	Persuader, The	wes AYC
5	9	3	Peyton Place	dr-c A
—	2	5	Please! Mr. Balzac (French)	com A
—	9	—	Plunder Road	cri-mel AY
—	3	1	Portrait of an Unknown Woman (German)	dr A
—	3	—	Proud Rebel, The	dr-c AYC
1	8	7	Quiet American, The	war-dr AY

A	B	C		
—	8	6	Raintree County	war-dr-c A
—	1	3	Rape on the Moor (German)	dr A
—	5	5	Razzia (French)	cri-mel A
—	2	9	Return to Warbow	mel-c AYC
—	2	6	Ride a Violent Mile	wes A
—	1	8	Ride Out for Revenge	wes A
—	8	2	Rockabilly Baby	dr AYC
1	3	—	Rouge et Noir (French)	dr-c A
1	9	4	Run Silent, Run Deep	war-dr AYC
2	10	4	Sad Sack, The	war-com AYC
1	7	5	Saddle the Wind	wes-c AY
—	12	3	Safecracker, The (British)	war-mel AY
3	5	3	Satchmo the Great	mus-doc AY
6	8	3	Sayonara	dr-c A
—	2	6	Screaming Mimi	cri-mel A
1	8	6	Search for Paradise	trav-c AYC
1	10	3	Seven Hills of Rome, The	mus-dr-c AY
—	2	6	Ship Was Loaded, The (British)	war-com AY
—	6	2	Silken Affair, The (British)	com A
—	7	4	Sing, Boy, Sing	mus-dr AYC
—	4	3	Smallest Show on Earth, The (British)	com A
—	8	3	Smiles of a Summer Night (Swedish)	com A
—	2	4	Sorority Girl	mel A
5	6	3	South Pacific	mus-dr-c AY
—	8	4	Spanish Affair, The	dr-c AYC
—	3	5	St. Louis Blues	mus-biog AYC
—	7	3	Stage Struck	dr-c A
—	2	2	Stakeout on Dope Street	soc-mel A
—	2	4	Steel Bayonet (British)	war-mel A
—	6	8	Stopover Tokyo	mys-mel-c AYC
—	1	13	Story of Mankind, The	hist-dr-c AYC
—	10	5	Story of Vickie, The (Austrian)	biog-c AY
—	7	1	Summer Love	mus-com AY
—	7	1	Tall Stranger, The	wes-c AYC
—	1	3	Taming Sutton's Girl	mel A
—	6	11	Tarnished Angels, The	dr A
2	10	4	Teacher's Pet	com A
—	2	1	Teenage Bad Girl (British)	dr AY
—	1	4	Teenage Doll	cri-mel A
—	4	—	Teenage Monster	sci AY
—	1	2	Teenage Thunder	dr AYC
—	4	—	Teenage Wolf Pack (German)	mel A
—	5	—	This Happy Feeling	com-c AYC
—	4	5	Tijuana Story, The	mel A
—	3	1	Time Is My Enemy (British)	cri-mel AYC
1	4	1	Time to Love and a Time to Die, A	war-dr-c A
—	5	2	Time without Pity (British)	dr A
—	2	5	Touch of Evil	mel A
—	6	5	True Story of Lynn Stuart, The	cri-mel AY
—	—	5	Undersea Girl	cri-mel A
—	5	2	Underwater Warrior	war-mel AYC
—	1	3	Up in Smoke	com AYC
—	1	8	Violators, The	soc-dr A
—	3	3	Virtuous Scoundrel, The (French)	com A
—	4	—	White Horse Inn, The (German)	mus-com-c AYC
2	8	6	Wild Is the Wind	dr A
4	2	1	Windjammer	trav-c AYC
8	10	—	Witness for the Prosecution	mys-mel A
—	6	5	World Was His Jury, The	mel AYC
—	8	2	Young and Dangerous	dr A
—	3	2	Young and Wild	soc-mel A
5	6	5	Young Lions, The	war-dr A
1	13	3	Zero Hour	dr AYC

The Consumers' Observation Post

(Continued from page 4)

PREMIUM GASOLINES may offer better performance than regular or standard grades, but are they worth \$30 to \$40 a year in additional costs? Fleet News points out that no manager of an industrial fleet can justify such additional expense so long as satisfactory performance can be obtained from regular grades of gasoline. The publication suggests that no manufacturer of automobiles in the low price field, including Ford, Plymouth, and Chevrolet, would turn out a car that did not operate satisfactorily on standard fuel. Almost any car, if its carburetor is properly adjusted for the use of regular grades of gasoline with over 89 octane rating, can supply good, efficient performance for the average motorist in ordinary everyday driving, reports Fleet News. In mountainous country and under unusual strains, it may be in order to use premium gasolines.

* * *

ROYAL JELLY that is currently so fashionable in cosmetics and other products will in time join earlier fads in the limbo of magic ingredients. It is refreshing to note a letter from the vice president of one cosmetic house in a recent issue of Chemical Week correcting an announcement that the company was readying a product containing royal jelly. The executive reported that, since there was no basis in scientific evidence for including royal jelly in any cosmetic product, his firm had no plans whatever to use it in any Beauty Counselor preparations. Such frankness and fair dealing deserve consumer support.

* * *

PROPER INSTALLATION of an electric refrigerator is important for satisfactory operation. In order to make certain that their new refrigerators are properly installed and operated, the Norge Sales Corporation is putting out a diagram, in addition to a user's instruction booklet, that shows 10 steps to be carried out by the dealer in installing a new refrigerator. The purchaser can easily make certain that all points have been covered. Accompanying the new refrigerator also is a little card giving details and simple diagrams on how to use and care for the automatic ice-cube maker. This is an excellent step in the direction of seeing that consumers are educated in the use of their home appliances.

* * *

ACCIDENTAL POISONING OF CHILDREN in the United States is chiefly caused by aspirin and salicylates. The California State Department of Health, however, reports that, in California, pesticides containing arsenic take a high toll, accounting for 28 percent of the childhood poisoning cases admitted to Children's Hospital in Los Angeles. Arsenical pesticides are found in the home as ant pastes and syrups, weed killers, and rat poisons. Some arsenical weed killers, purchased as concentrates, are mixed in a tin can, jar, or pop bottle with water before applying. If the liquid is not all used at one time, it may be placed on a shelf within a child's reach. As the gardening season advances, there will no doubt be an increased number of pesticides, insecticides, and weed killers put into use by the home gardener. It is important that all such poisons be kept under lock and key where inquisitive small fry will not be tempted by them.

* * *

SALES TAXES provide an important source of city revenue. In fact, some cities collect a tax-on-a-tax and thus bring in more than some consumers think is proper. In New York City, for example, the Automobile Club of New York in 1956 was successful in eliminating the city sales tax on the manufacturers' federal excise tax paid on automobiles where the tax was itemized separately by the dealer on the invoice. In February 1958, however, the City Controller reversed the earlier ruling and renewed collection of New York's three percent sales tax on the retail price of many items that carry a 10 percent federal excise tax. In addition to automobiles, the ruling will apply to tires and tubes, radio sets, refrigerators

and other appliances, electric light bulbs, mechanical pens and pencils, and other items. For New York City, there will be a revenue rise of nearly a million dollars as a result of the change in tax ruling to collect a tax-on-a-tax, and purchasers will pay \$5 to \$19 more in buying a new car, because of the city's sharp practices in tax collection.

* * *

PENICILLIN IN MILK has been found to cause dermatitis in several cases described in *The Lancet*, a British medical journal. One physician, reporting a severe case, suggests that even minimal amounts of penicillin in milk supplies may be the cause of refractory allergic dermatitis more frequently than has hitherto been recognized.

* * *

SMOKING IS A POSITIVE FACTOR in the development of human lung cancer. That is the opinion of a seven-member study group on smoking and health organized by the American Cancer Society, reported in the *New England Journal of Medicine* last year. The barrage of propaganda, however, from the tobacco interests in countering the warnings issued by the medical profession tend to confuse the public about the dangers involved by their impressive and elaborate discussion of techniques of evaluating scientific data in which the public has little or no interest. The *New England Journal of Medicine* points out that the tobacco industry fails to provide information about the arsenic content of sprayed leaf tobacco, whether arsenic-impregnated soils contribute to the arsenic content of the leaf, whether the leaf arsenic could actually contribute to fragrance when the leaf is burned, and whether burley tobacco now reappearing in cigarettes is being used to maintain fragrance or for some other reason. The *Journal* notes that the present debate over whether smoking may be a factor but not a cause and whether the statistical studies associating the incidence of human lung cancer with smoking do or do not constitute proof may ensure a casuistic stalemate that may go on for many years, but the fact remains that a deadly serious decision awaits a final verdict by the impartial methods of biology and chemical science. The average person, in other words, is not interested in a highly technical discussion of the techniques involved in presenting the data but wants to know whether there really is a serious danger to him personally from smoking too much. It is as simple as that.

* * *

GAS APPLIANCES that are as free as possible from service problems are the concern of the appliance testing laboratory of the Philadelphia Gas Works. This public utility has a service crew of over 400 men who make minor repairs on gas appliances without charge. It is therefore important, according to Robert A. Sloan, head of the laboratory, that the gas appliances marketed by Philadelphia Gas Works be carefully selected in order to provide water heaters, ranges, dryers, heating equipment, and other gas appliances that will be likely to require a minimum of servicing. The laboratory not only tests the brands of gas appliances to be marketed in Philadelphia by the PGW, but also has men working at developing and improving various types of components including pilot lights, valves, burner jets and shields. Checking on the efficiency of an appliance is one of the major jobs handled through the cooperation of the service department.

* * *

HOW DO CAKES MADE FROM COMMERCIAL MIXES compare with those made from home recipes? The answers will vary according to the skill of the homemaker. In a study, by Marian E. Hermance and Phyllis Snow at the New York State Agricultural Experiment Station, of chocolate cakes from commercial mixes and those from home recipes, it was discovered that cakes from the commercial mixes, after six weeks' storage in the freezer or 48 hours' storage at room temperature, had a slightly stale flavor and dried out rather quickly at room temperature. The changes were less apparent in home recipe cakes. Commercial mixes required about 15 minutes less time in preparation. There was no great difference in over-all cost between the commercial and the home-mixed cakes. The biggest saving was in clean-up time since more utensils were needed for the home-mixed cakes.

Phonograph Records

BY WALTER F. GRUENINGER

Please Note: The first symbol applies to quality of interpretation, the second to fidelity of recording.

Beethoven: *Piano Concertos Nos. 1 and 2.* Cor de Groot with the Vienna Symphony under van Otterloo. Epic LC 3434. \$3.98. The Beethoven of the later concertos emerges occasionally, but the works are primarily in the Haydn-Mozart style. Good performance, notable for force and authority, and full bodied recording. AA A

Berlioz: *Roman Carnival Overture*, etc. Royal Philharmonic Orchestra under Beecham. Columbia ML 5247. \$3.98. Five overtures by Berlioz, Suppé, Beethoven, Elgar, Brahms. Sir Thomas is a dashing showman as well as a dedicated musician. This music gives him a chance to reveal many facets of his skill. The result is generally top drawer—but with some exceptions. The Beethoven *Coriolanus Overture* emerges with more lyricism and less fire than usual. But always the listener is aware of extraordinary nuance. The *Tragic Overture* of Brahms, like some of the others, is taken at a more deliberate pace than usual. The recording, made in Britain, is less brilliant than ours, but rich. A AA

Bloch: *Schelomo & Walton: Concerto.* Piatigorsky (cello) with the Boston Symphony under Munch. RCA Victor LM 2109. \$4.98. The rhapsodic *Schelomo* is the better known piece. Piatigorsky and the Bostonians gave the first performance of the *Concerto* in January 1957. I have never heard Piatigorsky play with more emotion, accuracy, and soaring tone. Well supported and magnificently recorded. AA A

Dvorak: *Symphony No. 2.* Hallé Orchestra under Barbirolli. Mercury MG 50159. \$4.98. Brahmsian, tragic work. Sir John leads his men in the best disk of this symphony now available. Close-in recording revealing all the instrumental strands, but Dvorak can stand more richness, fusing of sound. AA A

Gluck: *Orfeo and Euridice.* Stevens, della Casa, Peters, etc., under Monteux. 6 sides, RCA Victor LM 6136. \$14.98. The oldest opera still in the repertory, played by the Met this season with Risé Stevens in the principal role, as here. The recorded performance is respectable, but it could be improved. Miss Stevens sings better than she has sung on some recent occasions; yet, the grand classic conception does not get across. The other principals are quite satisfactory. The recording of long stretches of choral singing sounds pinched. Orchestral ballet music is recorded with less bass than we have a right to expect. But this disk is probably nearer to the original conception than any other available. A A

Handel: *Sonata in G & Sarasate: Spanish Dance—Navarra & Wieniawski: Three Etudes—Caprices & Benda: Trio Sonata.* David and Igor Oistrakh (violins). Decca DL 9962. \$3.98. Father and son continue their exploration of the literature for two violins. Though the music is not as "significant" as their previous disk (Decca DL 9950), they play with less restraint, exhibiting an unexpected, pleasing romantic style (following the performance of the Handel) appropriate to the music. The speed and accuracy at which the Wieniawski is played is almost unbelievable. The disk is likely to appeal to nearly everyone who enjoys top-notch violin playing. AA AA

Haydn: *Symphonies Nos. 100 and 101.* London Symphony under Dorati. Mercury MG 50155. \$4.98. The "Military" and the "Clock"—two of Haydn's finest. The playing is transparent, refined, with appropriate thrust. First-class recording. AA AA

Ketelbey: *In a Chinese Temple Garden*, etc. Vienna State Opera Orchestra under Aliberti. Westminster WP 6082. \$3.98. Pops concerts often include one of these numbers—"In a Persian Market," "In a Monastery Garden," "Bells Across the Meadows," "In the Mystic Land of Egypt," etc. Most are descriptive miniatures which advanced collectors may consider old hat and good for a laugh. Other record buyers will regard them as

tuneful and nostalgic. Adroit playing. The wide-range, resonant recording unduly features percussion instruments. AA A

Milhaud: *Les Choéphores.* Moizan, Bouvier, Rehfuß, Nollier (singers). Chorale de L'Université and Lamoureux Orchestra under Markevitch & Honegger: *Symphony No. 5.* Lamoureux Orchestra under Markevitch. Decca DL 9956. \$3.98. Arresting, spaciouly recorded modern works. The Milhaud, based on the tragedy of Aeschylus, employs soloists and chorus most effectively. The Honegger symphony, though dark and somber for the most part, held my interest throughout. Recommended to those willing to explore rarely heard works by distinguished moderns. The performance is superlative. AA AA

Ponchielli: *La Gioconda.* Cerquetti, Simionato, Siepi, del Monaco, etc., under Gavazzeni. 6 sides, London A 4331. \$14.94. Violent, melodic, dramatic opera, with sweeping tunes that fit the action. Not the most polished performance imaginable. Cerquetti as La Gioconda shows she is nearly a big time performer, though a bit unsteady. All of the other principals are good, with Siepi and Simionato outstanding. The fidelity would be difficult to surpass at present. Best available set of this work. A AA

Puccini: *Turandot.* Callas, Schwarzkopf, Fernandi, Zaccaria, and other La Scala personnel under Serafin. 6 sides, Angel 3571. \$15.98. I've never heard a performance of *Turandot* that equaled this one, but it's not perfect. While there's some difference of opinion as to whether this is Puccini's best opera or his worst, as heard here it's a moving experience. The direction is magnificent; the ensemble outstanding; the soloists, with the exception of very few moments in this difficult music, are superb. Callas in the title role forces unpleasantly at times. Rich recording. Best set of this opera, although London XLLA 36 with Inge Borkh, del Monaco and Tebaldi under Erede is almost as good. A AA

La Zambra. Alvarado (guitar), Reyes (bailarin). Audio Fidelity AFLP 1848. \$5.98. Music of Spain. Guitar solos alternated with guitar accompaniment to the dance and flamenco singing—farruca, fandangos, tientos, alegrías, etc. All expertly done. Wide-range recording. AA AA

Music for Cards, Conversation and Cuddling. Harry Hermann and his Orchestra. Decca DL 8563. \$3.98. Those who like three or four lines of violins will love this one. The music is lush, bland, sweet, tuneful including "It Must Be Something Wonderful," "I Love to Dance," "Don't Ask Me Why," "Darling," etc. Rich recording. AA AA

The Lady From Philadelphia. Marian Anderson (contralto). RCA Victor LM 2212. \$3.98. An enthralling disk—original sound track album of "See It Now," televised December 30, 1957, featuring Marian Anderson. It is the account of Miss Anderson's 40,000 mile concert tour through Asia. In addition to on-the-spot reproduction of conversations and brief speeches, Miss Anderson sings spirituals, hymns, lieder, an aria, a Rodgers and Hammerstein tune. With the exception of a flat note here and there, she is in exceptionally fine voice. A B

The Union. National Gallery Orchestra under Bales, soloists, chorus, and Raymond Massey. Columbia DL 244. \$10. As a companion to its successful "The Confederacy," Columbia presents this music of the North from 1861-1865. Included are "Just Before the Battle Mother," "Kingdom Coming," "Marching Through Georgia," "When Johnny Comes Marching Home," "Battle Hymn of the Republic," etc. Raymond Massey reads Lincoln's "Gettysburg Address." Well played, sung, and recited. The recording hall is too resonant, causing some muddying of orchestral texture. Bound in the album is a lavish 60 page pictorial book on the Civil War. AA A

● OFF THE EDITOR'S CHEST

Stereo disks—high fidelity or novelty?

BEFORE THE YEAR IS OUT, stereo disks are expected to be available for review in these pages along with the present LP (monaural) records. The announcements of Columbia, RCA Victor, and Capitol Records that they are going into production indicates that a new dimension in musical sound will soon be available.

Stereophonic sound, in layman's language, is music recorded for hearing with two ears instead of one. The reproduced music gives the listener a feeling of depth and movement. One of the most striking examples is the reproduction of a march played by a band passing a reviewing stand which achieves the effect of music in motion as the musicians approach the listener on the left and pass into the distance on the right. This effect of position and motion has been achieved also by the stereophonic sound in the various Cinerama productions that have appeared in a specially designed theater in New York and several other large cities. It is not new and has been the subject of research at the Bell Laboratories for at least 20 years. Listening to stereophonic reproduction of music in the well-designed Bell auditorium has been described as enjoying a concert in the best seat in the hall.

Stereo reproduction *at its best*, whether on tape or records, gives greater depth and resonance than even the finest high-fidelity monaural LP records. The stereo technique, however, does not in itself assure high-fidelity reproduction of sound.

The announcement of three major record companies that they are going into the production of stereo disks does not indicate that the problem of compatibility has been completely solved. Ideally, compatibility should mean that the customary phonograph pickup (monaural) would be able to play and give satisfactory monaural reproduction of the new stereo records, and that the new stereo pickup could also be used satisfactorily to play ordinary monaural LP records with good fidelity and without injury to the records. Practically, only Columbia claims a high degree of compatibility for its stereo disks and equipment. RCA Victor takes the position that for best results stereo disks should be played only with stereo equipment, but that monaural LP records *can* be played with a stereo cartridge. Subsequently Columbia Records announced that it too would put out a non-compatible stereophonic disk.

Conversion of present hi-fi equipment to stereophonic reproduction will not be difficult, but it will not be inexpensive either. In addition to a stereo stylus and pickup, a second amplifier-pre-amplifier and speaker are needed, and, for best results, the added items should be *duplicates* of the original equipment, according to some experts. The second speaker will very likely make an ordinary (monaural) LP record sound more spacious. Stereo pickups are being manufactured by Westrex, Fairchild, Pickering, Electro-Voice, CBS-Hytron, and Sonotone, and no doubt others will be in the field before these comments appear in print.

The engineering-minded hi-fi hobbyists who in the late '30's spent their free time putting together their own hi-fi systems—many using a design offered by Consumers' Research—from some familiar and elementary component parts will undoubtedly show keen interest in experimenting with new stereo developments. Although Dr. Peter Goldmark, president of the Laboratory Division of Columbia Broadcasting Company, said in an address to the Institute of Radio Engineers that the LP records of the future would all be stereophonic sound, he did not define what he meant by "future" in terms of years. It seems likely that, for the next two or three years at least, those who enjoy good music more than putting on a stunt will prefer to stick with their present equipment until most of the bugs are ironed out of stereo equipment—and they will be many.

There is some question as to whether stereophonic sound in its early stages will give as good high fidelity as the best of present LP (monaural) records on hi-fi equipment. The musical effect is interesting but in a good many cases it may be more an ultra-ultra novelty than true high-fidelity sound. As one commentator pointed out, it took about seven years for LP to iron out its bugs. While very likely it will not take stereo disks that long, only those who can afford to be guinea pigs for manufacturers in testing new and untried developments will discard their present equipment for stereo components, and so many interesting LP records are coming out these days that those who enjoy good music will not want to pass up the wide variety of regular LP's currently available until the stereo disks have established a wide library of recordings for them to choose from.

(Continued on page 30)

Outdoor burners for papers and rubbish

*What to look for, so that you can
burn trash safely and conveniently*

MOST HOMEOWNERS who have the yard space available are likely to burn papers and other easily combustible material—without concerning themselves too much with the problem of sparks and hot or burning bits of paper rising into the air. Ultimately some of these settle elsewhere and all too often start a fire in dry leaves or grass. As a safeguard, some municipalities have adopted fire codes which, while permitting the use of refuse burners, govern their location and their construction, so as to afford a reasonable degree of protection to surrounding buildings, fields, and woods.

One large city's fire code, for example, requires that the burning of trash be done in an "approved-type" incinerator with a closed top, located not less than 10 feet from any structure. Further, under that city's air pollution regulations, trash burning is not permitted before sunrise nor later than two hours before sunset. Burning of trash is prohibited during foggy or stormy weather or periods of certain unfavorable atmospheric conditions, and fires must be extinguished by one hour after sunset.

While many homeowners in thinly populated areas will not need to be concerned with requirements that prohibit undue pollution of the air, they certainly should give serious thought to the structure and location of the refuse burner or other means used for the burning of papers, boxes, etc.

Small outdoor trash burners such as the popular wire basket type may be purchased in hardware stores. An improvised device of a similar nature can be made from an oil drum with some holes in it to supply air for combustion. Both types are cheap, but their useful life is short in most climates. Thin sheet-metal incinerators will not last a single season where they are subject to much rain or snow and may lose in a few months any value they might have in preventing the flying of sparks and burning bits of paper. The most that can be said of ordinary trash burners is that during the first few weeks of use they may prevent the blowing about of some burning rubbish and papers if the weather is



Blitz-Burner

calm and there are no gusts of wind. *They should not be used in any location where it would not be safe to build a bonfire.*

There are many types, styles, and sizes of outdoor incinerators sold for the burning of trash. The National Fire Protection Association has written specifications covering outdoor waste burners; these specifications call for resistance to high temperatures, to alternate heating and cooling, and to weather. N.F.P.A. specifications require that, during a period of at least two years of normal usage, structural parts of a trash burner will not warp, crack, corrode, or otherwise fail in such a manner that doors or covers do not fit tightly; nor should cracks or other openings develop in masonry through which flying brands or sparks may pass.

The common tall wire basket that serves as a trash burner for most people, and is the kind typically offered by department and hardware stores and mail-order houses, is completely unsuitable from the standpoint of safety against starting a fire, in leaves, trees, or rubbish near by

(Continued on page 24)

**COMING
IN FUTURE
BULLETINS**

Auto polishes and waxes

Allstate	DuPont	Simoniz
Alsol	Johnson's	Turtle Wax
Autobrite	Mac's	Volkswagen
Cadillac	Prestone	Ward's

Three small cars

Rambler American
Volvo
Borgward

Outboard motors

Evinrude	Johnson	Mercury
Gale		Scott-Atwater

Ball-point pens

Autopoint	Flo-Ball	Scripto
Esterbrook	Paper-Mate	Venus
Eversharp	Parker	Waterman's
Ferber	Sheaffer's	Wearever

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